

SOME EIGHTEENTH
CENTURY BIRD PAINTINGS
IN THE LIBRARY OF
SIR JOSEPH BANKS (1743-1820)

AVERIL LYSAGHT

BULLETIN OF
THE BRITISH MUSEUM (NATURAL HISTORY)
HISTORICAL SERIES Vol. 1, No. 6
LONDON: 1959

SOME EIGHTEENTH CENTURY
BIRD PAINTINGS IN THE LIBRARY
OF SIR JOSEPH BANKS (1743-1820)

BY

AVERIL LYSAGHT

Pp. 251-371 ; Plates 35-37

BULLETIN OF
THE BRITISH MUSEUM (NATURAL HISTORY)
HISTORICAL SERIES

Vol. 1, No. 6

LONDON: 1959

THE BULLETIN OF THE BRITISH MUSEUM
(NATURAL HISTORY), *instituted in 1949, is
issued in five series corresponding to the Departments
of the Museum, and an Historical series.*

*Parts appear at irregular intervals as they become
ready. Volumes will contain about three or four
hundred pages, and will not necessarily be completed
within one calendar year.*

This paper is Vol. I No. 6 of the Historical series.

© Trustees of the British Museum, 1959

PRINTED BY ORDER OF THE TRUSTEES OF
THE BRITISH MUSEUM

Issued April, 1959

Price Revised
Price Two Pounds

SOME EIGHTEENTH CENTURY BIRD PAINTINGS IN THE LIBRARY OF SIR JOSEPH BANKS

By AVERIL LYSAGHT

CONTENTS

	<i>Page</i>
1. INTRODUCTION	253
2. MATERIAL AND SOURCES	255
3. BIOGRAPHICAL NOTES; Sir Joseph Banks, John Latham, Daniel Solander, Sydney Parkinson, Peter Paillou, Reinhold and Georg Forster, William Anderson, William Ellis, John Webber, Phillip D'Auvergne, J. F. Miller (Müller), Francis Masson and Colonel Gordon, Mrs. Brant, John Greenwood	257
4. A GENERAL NOTE ON THE PAINTINGS WITH A KEY TO ABBREVIATIONS	265
5. PAINTINGS BY SYDNEY PARKINSON AND PETER PAILLOU OF BIRDS COLLECTED BY BANKS IN NEWFOUNDLAND AND LABRADOR IN 1766	266
6. BIRDS PAINTED BY SYDNEY PARKINSON ON COOK'S FIRST VOYAGE, 1768-71	272
7. BIRDS PAINTED BY GEORG FORSTER ON COOK'S SECOND VOYAGE, 1772-75	280
8. BIRDS PAINTED BY AN UNKNOWN ARTIST ON COOK'S SECOND VOYAGE	310
9. BIRDS PAINTED BY WILLIAM ELLIS ON COOK'S THIRD VOYAGE, 1776-80	322
10. BIRDS PAINTED BY JOHN WEBBER ON COOK'S THIRD VOYAGE	339
11. PAINTINGS BY PHILIP D'AUVERGNE AND J. F. MILLER OF BIRDS COLLECTED ON J. C. PHIPPS'S VOYAGE TOWARDS THE NORTH POLE IN 1773	344
12. BIRD PAINTINGS BY COLONEL GORDON ACQUIRED BY FRANCIS MASSON AT THE CAPE OF GOOD HOPE, 1772-76	345
13. SOME MISCELLANEOUS BIRD PAINTINGS BOUND WITH SOME OF THE ABOVE AND EXECUTED AT APPROXIMATELY THE SAME PERIOD	347
14. REFERENCES	349
15. APPENDICES—	
A. List of birds collected by Sir Joseph Banks in Newfoundland and Labrador, May-October, 1766	357
B. Index to the birds described by Solander on Cook's first voyage, 1768-71	359
C. Cook's itineraries	362
16. INDEX	366

I. INTRODUCTION

THIS study is an account of a number of the bird paintings, many of them still unpublished, which were executed for Sir Joseph Banks by various naturalists and artists in the latter part of the eighteenth century, particularly those connected

with the voyages of Captain Cook. As a result of the primitive methods used in preserving bird skins at that time travellers' specimens tended to deteriorate, especially on long sea voyages, so that the drawings of newly-discovered species were sometimes the only basis of the published descriptions. This is made clear in Latham's *General Synopsis of Birds* (1781-85) which was largely used by Gmelin in the new and greatly enlarged edition of the *Systema Naturae* 1788-89, where he gave scientific binomials to a great number of new species. It thus happens that some of these drawings from Banks's collection are in fact the types of the species, and that the localities noted on them are the type localities. Their significance is further increased on account of the profound alterations in habitat that have occurred since the eighteenth century in many of the islands visited by Cook, with the result that some of the birds discovered at that time have now become greatly reduced in numbers, if not extinct.* They are also valuable in that together with the descriptions made by Cook's naturalists they constitute the first comprehensive records of petrels and other oceanic birds from the then almost unknown seas of the southern hemisphere.

The importance of the principal collections of bird drawings made on Cook's voyages was recognized by Bowdler Sharpe in the *History of the Collections* (1906). Earlier workers include Banks's contemporaries John Latham and Thomas Pennant; Heinrich Kuhl, a brilliant young zoologist who died in Java in 1821 at the age of twenty-four; the later nineteenth century ornithologists Lionel Wigglesworth and Osbert Salvin; and, more recently, Gregory Mathews, Tom Iredale and Dr. Stresemann. Many others have made less extensive use of the material.

Owing to the scattered nature of earlier publications on the Banksian drawings, the re-discovery of some folios that have remained unpublished, and the increase in our knowledge of many southern and Polynesian species as a result of the Whitney expedition, it seems opportune to attempt some re-assessment of the drawings noted above. These do not include all the bird drawings in the Banksian collection but it is hoped that some others of particular interest may be dealt with in a later paper.

I should like to express first of all my indebtedness to the late Sir Norman Kinnear who originally suggested that I should attempt this work, and without whose kindness and co-operation it could never have been carried out; to the Hakluyt Society who gave me a grant and who have assisted generously with expenses incurred in connection with the Cook collections; to the staff of the Bird Room of the British Museum (Natural History); I have much pleasure also in thanking the staffs of the libraries of the British Museum (Natural History); Mr. A. E. Popham and Mr. Croft-Murray very generously gave me every facility for examining the Banksian collection of drawings now in the Print Room, British Museum; Dr. G. C. A. Junge helped me to trace birds from Cook's expeditions that are still in the Rijksmuseum van Natuurlijke Historie at Leiden; and Professor Berlioz gave me every facility for examining the Commerson-Sonnerat MSS. in the Muséum

* Mr. Greenway's most interesting book (1958) on the factors concerned with the extinction or near-extinction of many of the birds mentioned in these pages appeared when this paper was already in proof and it was not possible to include references to it.

National d'Histoire Naturelle. My thanks are also due to Dr. A. C. Stephen, of the Royal Scottish Museum, and to Mr. Finlayson, Keeper of Manuscripts in the University of Edinburgh, in connection with the identification of the Cook drawings in that city; to Dr. John Evans, Director of the Australian Museum, and to Miss Mander Jones of the Mitchell Library of Sydney for their co-operation over the Cook drawings there; to Miss Margaret Hibbard for calling my attention to the existence of Banks's Newfoundland notebook in the McGill University Library, and to Mr. Richard Pennington for permission to use it. Many other friends and colleagues, particularly the late Captain C. H. B. Grant, Dr. A. Wetmore, Miss Lindsay McDougall, Dr. J. S. Richardson, Mr. W. T. Stearn, Professor Joseph Ewan, Dr. R. A. Falla and Mr. Graham Turbott, have helped me and stimulated my work in various ways. My special thanks are due to Dr. W. R. P. Bourne for helping me with the notes on petrels, and for having read the page proofs.

2. MATERIAL AND SOURCES

The paintings listed and discussed in the following paper are for the most part the work of a number of eighteenth century professional and amateur artists employed by Banks; in addition there are some he seems to have purchased. Some of the larger collections were indexed as a whole in the printed catalogue of Banks's library prepared by Jonas Dryander (1748-1810) who became librarian after the death of Solander in 1782. Dryander's catalogue consisted of five volumes which appeared at intervals from 1796 to 1800. A second edition, with MS. additions to the original text, was prepared but never actually published; it is now in the British Museum (Natural History). The first edition was a most useful work and was greatly in demand at the time of publication; the volumes concerned with botany, zoology mineralogy were arranged under an elaborate series of headings, historical, geographical, systematic, bibliographical and so on; a number of collections of plant and animal drawings were briefly catalogued (2: 15-17; 3: 63-69) and include those of Georg Forster (Cook's second voyage), William Ellis and William Webber (Cook's third voyage). The work of minor contributors is not mentioned, nor is that of Sydney Parkinson, a member of Banks's staff and the principal natural history painter on the first of Cook's voyages.

Dryander also compiled a detailed MS. catalogue, arranged systematically, of the animal drawings in Banks's library which were apparently made generally available to visiting scientists, a few being published at the time, with or without acknowledgment.

The Banksian library ultimately passed to the British Museum but when in 1880 the Natural History Collections were transferred to South Kensington a number of Banksian natural history drawings were overlooked and left behind in the Department of MSS. In 1913 these were nearly all transferred to the Print Room but since the artists concerned were of little account in the bright galaxy of stars already there they were practically forgotten. So when Bowdler Sharpe and his colleagues wrote their magnificent *Catalogue of Birds in the British Museum* (1874-98, 27 vols.)

their rich bibliographical material included many references to the drawings by Georg Forster and W. Ellis, to a large proportion of those by Sydney Parkinson in this Museum, but not to those by Parkinson, Webber and their contemporaries, that had remained in the Print Room. In the *History of the Collections contained in the Natural History Departments of the British Museum*, 2 (1906) Sharpe published descriptions of the bird paintings by Parkinson, Forster and Ellis, but again made no reference to the work of Webber, nor to the Parkinson drawings that had been left in Bloomsbury, neither does he appear to have known of the Dryander MS. Catalogue, nor of the Solander and other contemporary MSS. in which the animals collected on Cook's first voyage and painted by Parkinson and his fellow artists are described. According to Gregory Mathews (*Birds of Australia*, 1912-13, 2: 3) these descriptions had been overlooked after Gray had worked on them in 1871 and he states that they were not consulted either by Salvin or Godman in their works on petrels. Salvin had, however, known of some of the Solander MSS. as, when he is discussing Parkinson's drawings of petrels (1875: 223), he says "They all bear the signature of Sydney Parkinson [this is incorrect]; the date when, and frequently the latitude and longitude where they were made, are also written upon them. This much is entered in ink; but besides these marks they have notes in pencil inscribed upon them in another handwriting, and evidently by someone who was present at the time the sketches were executed. These pencil-notes always include a generic and specific name, which correspond with those employed in Solander's MS. to which I have had access." On p. 226 he makes it clear that some of the MSS. were not available and that the MS. notes he quotes are from Solander's interleaved twelfth edition of the *Systema Naturae*.

Mathews did a great service to zoologists by searching for more Solander MSS. in the British Museum and finally found a large bundle of these precious historical documents labelled "Copies". These were fair copies, prepared for publication, of Solander's systematic work on the animals collected on the first of Cook's voyages. About this time the Dryander MS. catalogue of drawings was also brought out of obscurity; it is indexed for the first time in the *Catalogue of the Library, British Museum (Natural History)*, 6, 1922.

Much of the less-known material in the following paper was found as a result of Dryander's careful work. Thus a successful search for the Webber drawings resulted from his entry on p. 17 of vol. 2 of the *Cat. Bibl. Hist.-Nat. J. Banks* "Icones pictae Avium et Piscium 46, quas in Cookii ultimo itinere delineavit Gulielmus Webber". This led to another discovery. Mr. Theed Pearse of Vancouver, who is working at a history of the ornithology of that region, visited the Print Room to see the Webber drawings and noticed an open volume on a table with unsigned drawings from Cook's second voyage. As he was about to leave this country he was unable to work at these drawings himself and told the present writer of them. They were in a bound folio with a large number of other drawings of much interest including those by Paillou of birds that had been brought back from Newfoundland and Labrador by Banks in 1766. This in turn led to some drawings by Parkinson of some other Newfoundland birds in another volume, and to a comparison of the second voyage drawings by an unknown artist with those in the Royal Scottish

Museum and with a similar series in the Australian Museum, Sydney. Many of these drawings are noted in Dryander's MS. catalogue, and some of his notes on localities and authorship have been very useful.

3. BIOGRAPHICAL NOTES

Banks and Latham are already well known to most ornithologists, and a good deal of information about some of the other naturalists and artists mentioned below is available in Mrs. E. G. Allen's delightful *History of North American Ornithology* (1951) which includes a useful bibliography. The following notes are therefore not intended to be comprehensive; in addition to brief biographical statements they contain only some general information about the whereabouts of some MSS. concerned with the less-known voyages, with some details of itineraries that bear directly on type localities, and on matters connected with the attributions of some of the unsigned paintings. William Anderson is dealt with in greater length than the other people, partly because the paintings in the Royal Scottish Museum appear to have been in his possession, and partly because it is hoped that the publication of some hitherto unknown details of his life in Scotland may lead to the discovery of his missing diary of Captain Cook's second voyage round the world, which may well be in private hands, or in some Scottish library.

(a) SIR JOSEPH BANKS, F.R.S., 1743-1820

Banks went on his first voyage as a serious naturalist in 1766, when twenty-three years of age, sailing with his friend Lieutenant Constantine Phipps, afterwards Lord Mulgrave, on the *Niger* commanded by Captain Thomas Adams who was concerned with the fisheries of Newfoundland and Labrador. Banks's diary of this journey is now in Adelaide; a transcript, his botanical notebook, and drawings by Ehret of some of the plants collected, are in the Botany Library, British Museum (Natural History), the drawings of birds by Parkinson and Paillou are in the Print Room, British Museum, and many sheets of his zoological notes are in the McGill University Library, Montreal. In an entry in the diary for 2nd August, 1766, Banks complains that he has been unable to work during July on account of "a fever, which to my great misfortune confined me the greatest part of that month to the ship . . . [My Servant] shot several Birds for me, but my situation far too weak and dispirited by my Illness, to Examine systematically: anything that was brought has made my Bird Tub a chaos, of which I cannot give so good an account as I could wish". Some of these birds were, however, stuffed and in 1767 and 1768 were painted by Parkinson; paintings of others by Paillou are undated. The paintings, Banks's notes and the unpublished lists of skins in his collection, show that he collected about seventy species of birds in his five and a half months visit to Newfoundland and Labrador (see appendix A), and it is the first comprehensive collection from that part of Canada. Captain George Cartwright, who visited Labrador in 1770 and lived there for nearly sixteen years, is usually regarded as the first naturalist to have recorded the birds of that region.

Although Banks accompanied Captain Cook on only the first of his three major voyages he acquired most of the natural history drawings from all of them, and also a large quantity of specimens, and thus owned an invaluable collection from the newly-discovered countries of the Pacific as well as from the seas of the Arctic and Antarctic regions. He was exceedingly generous in allowing free access to these collections and contemporary zoologists as well as botanists owe him more than can easily be assessed. Pennant, for instance, made use of his unpublished Newfoundland diary, borrowed his birds, and had engravings made from the paintings by Parkinson and Paillou: Kuhl worked on some of the drawings of the petrels collected on Cook's voyages; the paintings of fishes were studied and in some cases published by Bloch and Schneider; Latham, more punctilious in his thanks than Pennant, used both drawings and skins of many of the birds; and Fabricius worked extensively on the insects. So, generally speaking, a certain amount of the work of the naturalists and artists employed by Banks did filter here and there into print but it is impossible not to regret that the comprehensive studies by Solander on the great bulk of the Banksian material remained in MS. and that his names for the newly-discovered plants and animals were allowed to lapse, or were published by other workers who thus became the recognized authors of the species concerned.

A very much abridged edition of Bank's *Endeavour* diary was published by J. D. Hooker in 1896. A carefully annotated edition of the original MS. is now being printed by the Mitchell Library and should be available shortly.

(b) JOHN LATHAM, M.D., 1740-1837

Latham was three years older than Banks. His *General Synopsis of Birds* began to appear in 1781 and was completed in 1785, with a two-volume supplement following in 1787 and 1802. His *Index Ornithologicus* was published in 1790, with a supplement twelve years later, and the *General History of Birds* in 1821-28.

The *General Synopsis of Birds* is of special importance to ornithologists as many of the specimens new to science which were collected on Cook's voyages were first described in it and then given valid binomials by Gmelin in 1788-89 in his revision of the *Systema Naturae*. Gmelin, in fact, on many occasions simply translated Latham's account of a species into Latin, and by referring to the *General Synopsis* it is often possible to find out whether Latham based his description on drawings or specimens, and so to trace the type locality.

Latham freely acknowledged his debt to Banks who is said to have handsomely given him access to all his collections and allowed him to copy some of the drawings. Latham actually etched all his own plates, and most of them are signed with the initial L. He was punctilious in giving acknowledgment to the writers of the MSS. quoted by him and often refers to Reinhold Forster and William Anderson (q.v.).

(c) DANIEL SOLANDER, 1736-82

In addition to what we already know of Solander, an unpublished translation by Miss Nora Gourlie of the commemorative lecture on him by R. E. Fries (1940) is now available in the British Museum (Natural History). His most important MSS.

are listed in the *Cat. Library Brit. Mus. (Nat. Hist.)* 5, 1915, where there are twenty-one entries under his name. Amongst these is a fair copy of his detailed descriptions of the animals collected on Cook's first voyage which include fifty-four species of birds, most of them oceanic species. Together with Parkinson's paintings these constitute the earliest comprehensive record of an ornithological transect of both the Atlantic and Pacific oceans. Many of these descriptions were first published by Gregory Mathews in 1912, and briefly discussed by Iredale in 1913.

(d) SYDNEY PARKINSON, 1745-71

An account of this gifted young man has already appeared (Sawyer, 1950) and further details of his life and work are given in H. C. Cameron's book on Banks (1952) and in the Hakluyt Society's edition of Cook's journals (1, 1955). A large number of Parkinson's natural history drawings are in the Print Room at Bloomsbury and in the Botanical and Zoological Departments at South Kensington; his sketchbook and a number of other drawings are in the Manuscript Room at Bloomsbury, others are in private hands. Some of his paintings were used by Pennant, and lithographs of 319 of his drawings, with determinations by James Britten, were published by the British Museum (1900-05). Most of his drawings have, however, remained unpublished, and those in the Print Room have not hitherto been properly examined. This was perhaps partly due to the fact that most of them were pasted on to folios so that the notes on localities were not available. It was only when Paillou's paintings of the Newfoundland birds were found in the Print Room that it was obvious that the Parkinson drawings there should be carefully checked. An old register showed that Parkinson had also painted birds from Newfoundland, and Mr. Croft-Murray kindly allowed the paintings to be lifted from their mounts so that Banks's notes could be read. In the present study the only Parkinson drawings to be catalogued are those of birds collected by Banks in Newfoundland and Labrador, and by Banks and Solander on Cook's voyage in the *Endeavour*.

(e) PETER PAILLOU, n.d.

Little is known of this painter who worked both for Banks and Pennant. He is frequently confused with a miniaturist of the same name who may have been his son and who is said to have lived in Islington and exhibited at the Royal Academy from 1786 to 1800: he was apparently still working in Glasgow in 1820. The earliest surviving work of the older man appears to be a large series of natural history drawings executed for Taylor White, F.R.S., of Wallingwells, Notts, an enthusiastic naturalist and collector. White refers to specimens of North American birds being collected for him by his "learned friend Hodgkinson Banks" but it has not been possible to find any biographical details of this man. His collection of drawings is now in the Blacker Library, McGill University, Montreal and a list of them has been given by Casey Wood who states (1931: 131-132, 504) that the earliest folio of paintings by Paillou is dated 1720. There are several folios of later works by him and Charles Collins. It seems probable that it was this Peter Paillou who was a member of the Society of Artists and exhibited "A Horned Owl (from Peru) in Feathers"

which was mentioned in their catalogue of an exhibition of 1778. He was still active about 1784 as the splendid frontispiece of Pennant's *Arctic Zoology* is his work. It would appear that he died soon after that. In his *Literary Life* (1793) Pennant states: "About the year 1761 I began my *British Zoology*, which, when completed, consisted of cxxxii plates on imperial paper. . . . The painter was Mr. *Peter Pallou* [*sic*!], an excellent artist, but too fond of giving gaudy colours to his subjects. He painted, for my hall, at *Downing*, several pictures of birds and animals, attended with suitable landscapes. . . . all have their merit, but occasion me to lament his conviviality, which affected his circumstances and abridged his days".

(f) JOHANN REINHOLD FORSTER, 1729-98, AND HIS SON
JOHANN GEORG ADAM FORSTER, 1754-94

Reinhold Forster's general account of the scientific results of Cook's second voyage round the world (1778) was a useful contribution to knowledge but unfortunately most of his detailed descriptions of the animals collected were not published until 1844 when they were edited by Lichtenstein and appeared with the title *Descriptiones Animalium quae in itinere ad maris australis terras per annos 1772 1773 et 1774 suscepto collegit observavit et delineavit Joannes Reinholdus Forster*. These descriptions are of considerable importance, more especially since in addition to the dates and localities Forster usually noted whether or not there was a drawing by Georg of the animal in question. There is an annotated MS. list of the unpublished drawings in the British Museum (Natural History), with some notes on localities, the scale of the drawings etc., and although this list is in an unknown hand the details in it suggest that it, or a similar list, must have been dictated by Reinhold Forster. Shortly after the return of the expedition he published an account of the penguins that had been collected, and a memoir on albatrosses.

Georg Forster was only eighteen when he sailed on the *Resolution* and only a fragment of the diary he kept on the voyage now remains, but it contains some interesting observations on oceanic birds. Banks was always generous to him, in spite of his quarrels with Reinhold who fell out with everyone, and bought his drawings for £400. They are a most interesting collection, and include a particularly fine series of paintings of fishes. A few rather poor copies of the bird paintings are in the Australian Museum, Sydney. The fate of a set of copies by a professional artist which were made for presentation to King George III is unknown; owing to a dispute between the Forsters and Lord Sandwich the presentation was never actually made. It is just possible that four paintings [by Gertrude Metz of birds collected on the second voyage were part of that set (see p. 348).

(g) WILLIAM ANDERSON, 1750-78

It is a pleasure to acknowledge the kind help I have received from Dr. J. S. Richardson of North Berwick in tracing the family history of this young Scottish surgeon. He was highly thought of by Cook and acted as official naturalist on the third voyage.

William was the second son of Robert Anderson, a schoolmaster of North Berwick, and was born on 28th December, 1750. He studied in the Medical Faculty at Edinburgh University from 1766 to 1769, and passed the examinations of the Royal College of Surgeons in England in 1768 and 1770. He sailed as surgeon's chief mate on the second of Cook's voyages, and probably benefited considerably from working with the Forsters. He was chief surgeon as well as naturalist on the third voyage from which he did not return. He kept a diary on the second voyage, and had it with him on the third but its fate is unknown. Two volumes of his diary of the third voyage are in the Public Record Office; a third has been lost. His natural history notebooks are in the British Museum (Natural History). As far as we know at present, no papers of his are in public collections in Scotland with the exception of a chart in his handwriting which is bound at the end of a volume of bird paintings from the second voyage, now in the Royal Scottish Museum. These paintings are the work of an amateur, and companion sets by the same man are in the Print Room, British Museum, and in the Mitchell Library, Sydney. The Scottish set was sent to Sir Norman Kinnear for identification some years ago when the existence of the companion sets was unknown, and it then seemed quite probable that the artist was William Anderson. This supposition was based on the fact that Anderson was connected with Edinburgh University, and that the chart mentioned above was a copy of one by Georg Forster showing the track of the *Resolution* but with the place names written in Anderson's hand. In his will Anderson left his natural curiosities to Banks, but most of his belongings to his sisters Betty and Rabinah, and to his uncle William Melvill who was the tenant of the farm North Berwick Mains until the end of 1776 when he returned to Fife. Anderson's family was befriended, according to a letter to Banks from Lord Sandwich, then First Lord of the Admiralty, by a Mr. Dempster who saw that they received payment for the use of William's papers. This was almost certainly George Dempster, one of Boswell's closest Scottish friends, and M.P. for Fife for about thirty years.

The bird paintings and the chart were given to Edinburgh University by Professor Alexander Monro (*secundus*) who had taught Anderson anatomy and surgery. The inscription on the title page is as follows: "Thirty-eight coloured Drawings of Birds of the Southern Hemisphere executed from the Life, in the course of Captain Cook's Second Voyage. They are the Figures of thirty-eight different Species, which belong to the following Orders of Linnaeus Presented to the Museum of the University by Dr. Alexander Monro Professor of Anatomy." Mr. C. P. Finlayson, Keeper of MSS., University of Edinburgh Library, tells me that the writing is that of Professor John Walker, who was Keeper of the University Museum 1779-1803. The drawings may indeed have been part of the collection of natural objects, including some from Cook's voyages, given to the Museum in 1785 by a number of gentlemen including Lord Hailes (a great friend of Dempster's) and Professor Monro. This presentation was mentioned in the *Edinburgh New Philosophical Journal*, 1854, 47: 33, but the details of it have not yet been traced.

The Sydney set, recently transferred from the Australian Museum to the Mitchell Library, was originally in the possession of Admiral Isaac Smith, a cousin of Mrs.

Cook's who was on the first and second of Cook's voyages. The notes in his hand appear to have been written years later and are largely misleading. The set in the Print Room is recorded in the Museum register as having been made "by or under the direction of Captain Clerke" who was on all three voyages; Banks has noted the localities on the back of these drawings and added "Capt. Clarke [*sic!*] 1775". There is apparently no other suggestion in the Cook and Banks MSS. that Captain Clerke drew animals or plants. There is also no record of Anderson's having drawn or painted. Had he done so it seems likely that this would have been mentioned by Banks or Dryander, or by Dr. Walker. Cook's men were acclaimed everywhere after the voyages, but Anderson was the only man for whom Cook expressed a warm personal regard. Another fact that makes it doubtful that the drawings are the work of Anderson is that nowhere in the pages of his diary or notebooks, nor in his will, does he refer to drawings, though had he executed them himself he would have most probably mentioned them in his notebook in order to supplement his careful descriptions. Finally it seems not improbable that having laboured at learning such a technique on the second voyage he would have used it on the third to make drawings of Hawaiian and North American birds.* None of these drawings is mentioned in Dryander's MS. catalogue of the zoological paintings in Banks's library.

(h) WILLIAM ELLIS, d. 1785

Little is known of this painter and surgeon who signed on as surgeon's second mate on the *Resolution's* sister ship, the *Discovery* on 22nd March, 1776. He died in 1785 on his way to Germany (*Gentleman's Magazine*, 1785, 55: 571) "where the Emperor had engaged him on advantageous terms to go on a voyage of discovery". There is a sheet of notes on the animals of Pulo Condore bound with his paintings in the Zoology Library of the British Museum (Natural History) but nothing is known of the whereabouts of his other MSS.

(i) JOHN WEBBER, ?1750-93

Webber sometimes signed himself William Webber but more often John; Dryander calls him Gulielmus Webber in the published catalogue of Banks's library (2: 17). He was a son of Abraham Webber, a Swiss sculptor, who came to this country as a young man but sent John to Berne for his education. Later he studied in Paris. His portrait of his brother in an exhibition at the Royal Academy attracted Solander's attention and led to his appointment as artist to Cook's third expedition. His natural history drawings were only incidental to his landscape and figure work; they are now to be seen in the Print Room, British Museum.

(j) PHILIP D'AUVERGNE, DUC DE BOUILLON, 1754-1816

I am indebted to Miss Lindsay McDougall, Archivist at the National Maritime Museum, for supplying me with the following details about D'Auvergne, especially since he was overlooked by the compilers of the *Dictionary of National Biography*,

* According to Solander they were the work of a midshipman. See J. C. Beaglehole, ed., *Journals of Captain James Cook*, 1959, 2, for. p. CLXV, Graphic Records.

and his paintings were not sufficiently notable to merit his inclusion in the standard reference books on art. He is, however, mentioned in James Harrison's *Life of Nelson* (1806 : 34) and he wrote a short autobiography in the *Naval Chronicle* (13 1805 : 169). He came from Jersey and sailed as a midshipman with Banks's friend Phipps on his unsuccessful search for a north-east passage to the East Indies. In his autobiography, which was written in the third person, he says, "The engravings that elucidate the account of the Voyage to Spitzbergen, which was published by Captain Phipps in 1774, were all taken from original sketches [which he lists] made on the spot by Mr. D'Auvergne who was also charged with the meteorological registers". Actually only three of the published engravings are ascribed to him. The few bird paintings listed below have considerable charm.

D'Auvergne became a F.R.S. in 1786, and rose to be a vice-admiral of the red.

(k) JOHN FREDERICK MILLER OR MÜLLER, n.d.

This artist who painted the Ivory Gull described by Phipps from the above voyage, was one of the twenty-seven children of Johann Sebastian Müller, a Nuremberg engraver who came to England in 1744 and was highly successful in his engravings of portraits of King George, Queen Charlotte and other members of the royal family. Probably on account of the numbers of his children there seems to be uncertainty about the dates of their births and deaths.

J. F. Miller accompanied Banks and Solander to Iceland in 1772. He executed the sixty plates which appeared 1776-85 under the title *Various Subjects of Natural History*. They were republished in 1796 as the *Cimelia Physica*, with text by G. Shaw who later became Keeper of Natural History and Modern Curiosities at the British Museum. Miller's brother James was also a draughtsman and both of them made botanical drawings for Banks.

(l) FRANCIS MASSON, 1741-1805, AND ROBERT JACOB GORDON, 1741-95

Masson was born in Aberdeen but came to London and worked under Aiton as an under-gardener at Kew for several years. His abilities attracted attention and in 1772 he was sent out as botanist and collector to the Cape of Good Hope by Sir John Pringle, then President of the Royal Society (Britten, 1884 : 114). He was markedly successful, and his botanical achievements were such that his zoological collections attracted little interest. It was not until Sir Norman Kinnear drew my attention to the inscription "Sent from the Cape of Good Hope to Sir John Pringle by Mr. Mason" on the back of a loosely mounted painting of the Namaqua Grouse, in the Print Room volume 199* B 4, that we realized that the Mr. Mason was in fact the famous botanist; Banks's spelling was always shaky.

Masson's first visit to the Cape of Good Hope was from 1772 to 1775. During this time he made three expeditions (*Phil. Trans.* 66, 1776 : 268) which have been discussed in detail by Hutchinson (1946 : 617-618). On the third of these (September, to December 1774) he and Thunberg went away north across Olifant's River and then inland to a dry, barren country, the Hantum, beyond the Bockland Mts., and about 350 miles north of the Cape of Good Hope. This was the most northerly country

visited by Masson. From there they journeyed to the Rhinoceros River, south-east to the Rogge Veld Mts., and so to Cape Town.

Masson knew Gordon and together with Thunberg they had in 1773 visited the mountains between Cape Town and False Bay for a week's collecting.

Colonel Gordon was a Dutchman of Scottish extraction with a keen interest in natural history. He was in charge of the Dutch East India Company's garrison at the Cape. A great admirer of the Prince of Orange—he had named the Orange River after him—he had gratitude and affection for the English who had given asylum to the Prince. When therefore the British sent a naval force to the Cape in 1795 to take Cape Town lest their enemies, the French, should do so, Gordon handed the town over to them. Reactionaries at the Cape accused him of cowardice and this slur on his military honour led him to commit suicide. His obituary on pp. 442–443 of the *Gentleman's Magazine* for 1796 contains a good deal about his interest and work in natural history. Gordon is said to have drawn careful outlines of his specimens himself but to have employed a draughtsman to colour them. Dyer has pointed out (1949 : 59) that some of his botanical plates are indistinguishable from those attributed to Masson. Masson's *Stapeliae Novae* (1796) is his best known work, and Britten (1884), Baker (1885) and others have assumed that he illustrated it himself. Hutchinson, however, considers that this is not so, and it now seems possible that those plates as well as the South African natural history paintings in Banks's possession were Gordon's work. After Gordon's death his widow brought his paintings to London hoping to sell them, but neither Banks nor the British Government were willing to purchase them. In 1913 they were bought by the Rijks Museum in Amsterdam where they now are. In September 1956, Dr. W. R. P. Bourne kindly examined them on my behalf and he tells me that those of birds and mammals are identical in style with those in the Print Room vol. 199* B 4 attributed to Masson, and that some are indeed duplicates. It is of interest that in 1818 I. B. Ker stated that Masson had acquired a valuable portfolio of natural history drawings, the work of a gifted Dutch soldier, at the Cape of Good Hope. He goes on to say that many of the drawings endorsed in Banks's hand "Mr. Mason, Cape of Good Hope, 1775" had been given by Banks to the Department of Botany, British Museum. A similar endorsement appears on the back of some of the South African bird paintings listed below.

(m) MRS. BRANT

Mr. Warren R. Dawson has kindly given me these notes on the Brant (also spelt Brandt or Brand) family. Christoffel Brant was born at the Cape of Good Hope in 1730, and when a young man entered the service of the Dutch East India Company. He entertained Cook and Banks when the *Endeavour* visited Cape Town in 1771. Mr. and Mrs. Brant sent plants (including some collected by Skene, surgeon of the *Morse*), animals and drawings to Banks; the drawings in the Print Room vol. 199* B 4 are unsigned but are so similar to Colonel Gordon's work that I should not have hesitated in ascribing them to him were it not for the fact that some of them are dated 1772, and according to Dyer (1949) Gordon did not reach the Cape

until 1773. It is possible that they are the work of the draughtsman who later entered Gordon's service.

(n) JOHN GREENWOOD, 1727-92

This portrait painter was born in Boston, Mass. At the age of fifteen he was apprenticed to Thomas Johnston, an artist in water colour, heraldic painting, japanning and engraving. Ten years later he went to Surinam where according to the *Dictionary of National Biography* he remained until 1757, making a considerable success of his paintings of the wealthy Dutch planters, and collecting and sketching plants and animals. In 1758 he went to Amsterdam for further training, and he finally settled in London where he realized that his work was so inferior to that of his friend Gainsborough that he gave up painting and became art critic and auctioneer. According to Dryander, Banks owned seven of his drawings; two of these were reproduced in Pennant's *History of Quadrupeds* (1781: pls. 49, 50). (See also Burroughs, 1943.)

4. A GENERAL NOTE ON THE PAINTINGS,
WITH A KEY TO ABBREVIATIONS

All the drawings listed in the following pages are either pencil sketches or water-colour drawings, sometimes with the addition of a good deal of body-colour. I have usually indicated whether they are sketches or finished paintings, but when the whole collection consists of finished work, as in the case of the Parkinson paintings on vellum which include his Newfoundland birds, and the Webber water-colours of birds from Cook's third voyage, this is noted at the beginning of the series and not for each drawing.

The drawings are numbered with the number of the folio on to which they are affixed. The numbering is not necessarily consecutive since some of the collections are mixed. Even the first drawing in a volume is not always numbered "1" as, for instance, in the case of the Webber drawings which begin at 105, and must be part of a larger series, the whereabouts of the remainder being so far unknown.

In the transcription of the MS. notes on the drawings those believed to be by the artist are placed first and are not preceded by a bracketed initial; those by Banks, Dryander etc. are always preceded by a bracketed initial, according to the abbreviations given below: those by Latham and later writers have not been identified with certainty and are simply preceded by *Al*.

An asterisk indicates that the published description of the species was based on that particular drawing which should therefore be regarded as the type. Cross references to other paintings of a species in Banks's library are given at the end of the notes on each drawing.

Trinomials have been used when geographical distribution appears to justify them. Many of them are, in fact, based on the specimens collected on these expeditions.

Cross references to other drawings of a species are given only for birds collected on Cook's voyages.

The principal abbreviations used are the following: B., Sir Joseph Banks; D., Jonas Dryander; J. R. F., Johann Reinhold Forster; S. Daniel Solander; A.M., paintings from the volume formerly in the Australian Museum, now in the Mitchell Library, Sydney; M.E., paintings from the volume in the Royal Scottish Museum; P.R., paintings from the Print Room volume 199 B 4.

5. PAINTINGS BY SYDNEY PARKINSON AND PETER PAILLOU OF
BIRDS COLLECTED BY BANKS IN NEWFOUNDLAND AND
LABRADOR IN 1766

- (a) *Parkinson's Paintings* (15) *Contained in Brit. Mus. (Print Room) Vol. 199* B 1, ff. 8-39.*

These water-colour drawings on vellum were catalogued by Dryander. Some of them have been trimmed so that Banks's notes on locality etc. on the back have been lost or mutilated but it has been possible to trace some specimens from notes in Banks's diary, or from his MS. now in McGill University Library. I am most grateful to Dr. T. H. Manning for checking my identifications of the paintings of these northern birds.

8. *Dendroica petechia* (Linn.), 1766. Yellow Warbler, male.

"Sydney Parkinson pinxt, 1767. *Motacilla petechia*. Olivacea, subtus flava rubro guttata, pileo rubro. Habitat in America septentrionali Linn." (B.) "Dry specimen. Newfoundland. Gold Bird. N. 63." (Al.) "156."

Parkinson's notes do not agree with the painting since the bird he painted had no red cap, and is a fair representation of *D. petechia*. Banks seems to have used the vernacular name "Gold Bird" for three warblers: the Yellow Warbler *D. petechia*, the Palm Warbler *Dendroica palmarum* (Gm.), 1789 and Wilson's Pileolated Warbler *Wilsonia pusilla* (Wilson), 1812. The male Palm Warbler is similar to the Yellow Warbler but has a chestnut cap and is almost certainly the bird referred to by Parkinson in his note on this painting. Banks clearly described the male and female of Wilson's Pileolated Warbler as "Gold Bird" in the McGill MS. He also noted a bird similar to the female of this last species, but paler, which was probably the female of the Yellow Warbler. All these warblers were taken at St. John's in early June.

14. *Passerella iliaca* (Merrem), 1786. Eastern Fox Sparrow.

"Sydney Parkinson pinxt 1767." (B.) "[Dr]y specimen. [New]foundland." (Al.) "*Fringilla betula*."

Banks described this bird as an unknown *Fringilla* when he first collected it at St. John's on 26th May; on 7th October he took it again at Croque and then re-described it, giving it the MS. binomial of *F. betula*.

19. *Lagopus lagopus alleni* Stejneger, 1884. Allen's Willow Ptarmigan.

"Sydney Parkinson pinxt. 1768. *Tetrao Lagopus* Linne."

Banks has left no special notes on this ptarmigan but described in detail the mainland race from Chateau Bay. Parkinson's painting shows a bird in nearly full winter plumage, and the brown colouring of the webs along the dark shafts of the primaries

show that it is intended to represent the race known as Allen's Willow Ptarmigan which is restricted to Newfoundland.

20. *Crocethia alba* (Pallas), 1764. Sanderling.

"Sydney Parkinson pinxt. 1767." (B.) "[Dry sp]ecimen [New]foundland gregarious."
(Al.) "*Tringa hypoleucos*. 12."

The Sanderling passes through Newfoundland as an autumn migrant.

21. *Erolia minutilla* (Vieill.), 1819. American Stint or Least Sandpiper.

"Sydney Parkinson pinxt. 1767." (B.) "[Dry] specimen Newfoundland No. 37 125."

Banks gave this bird the MS. name of *Tringa littorea*, and states that he collected it in marshes near the sea at Chateau Bay in August.

23. *Surnia ulula caparoch* (Muller), 1776. American Hawk Owl.

"Peint d'après nature par Sidney Parkinson 1768. *Strix funerea* Linne Syst. nat."
(B.) "[New]foundland No. 10 79."

According to Banks this owl was taken both at Croque in Newfoundland and at Chateau Bay. It is now said to be very rare in Newfoundland.

26. *Somateria mollissima* (Linn.), 1758. Eider Duck.

"Peint d'après nature par Sidney Parkinson. *Anas mollissima* mas & femina. Length from the point of the tail to the tip of the bill 28 inches." (B.) "Newfoundland. No. 29."

Three races of these eider ducks, in addition to the King Eider which belongs to another species, have been recorded from Newfoundland and Banks appears to have collected them all. The American Common Eider *S. m. dresseri* Sharpe, 1871 is regarded as the common nesting bird there; the Northern Common Eider *S. m. borealis* (Brehm), 1824 is abundant in the non-breeding season; and the Pacific Common Eider *S. m. v-nigra* Gray, 1856 is said to be a rare visitor.

Parkinson's painting shows a male bird's head tilted so that the frontal processes can be clearly seen; it appears to be a Northern Common Eider. Banks comments on the enormous numbers of eider ducks nesting at Hare Bay; they were most probably the American Common Eider which still nests there and is thought to be the only breeding species. However, it is clear that he took the Pacific Common Eider there as well, since in his notes on an eider duck taken at Hare Bay in June he says "sub gula linea nigra" and it is the presence of the black "v" beneath the throat that distinguishes this last species from the otherwise similar American Common Eider.

The King Eider *Somateria spectabilis* (Linn.), 1758 was painted by Paillou (f. 109) but we know nothing of the circumstances in which it was obtained save for Banks having written on the painting that it was a Newfoundland specimen.

27. *Anas acuta tzitzihua* Vieillot, 1816. Pintail, young bird.

"Sydney Parkinson pinxt 1767."

Banks's notes have been trimmed away save for "No. 28" and the typical flourishes of some letters, presumably the top of his "Newfoundland." It is

probable that this bird was taken at Chateau Bay since Banks describes one as "*Anas gracilis*," which he collected there in September.

28. *Anas discors* Linn., 1766. Blue-winged Teal, female.

"S. Parkinson pinxt. 1767. *Anas discors* (mas) tectricibus alarum caeruleis, remigibus secundariis extus viridibus, fascia frontali alba. Habitat in America septentrionali. Linneus." (B.) "No. 27."

This species was taken at Chateau Bay on September 12th.

29. *Anas crecca carolinensis* Gm., 1789. Green-winged Teal.

"Sydney Parkinson pinxt. 1767. *Anas discors* (femina)." (B.) "Specimen [New]-foundland. The female of the Blue winged Teal." (Al.) "114."

Banks's description of a young teal (*Anas phascas* from Chateau Bay in MS.) seems to apply to this species. Austin (1932 : 44) considers that it is a rare visitor in Labrador. Its status in the eighteenth century may well have been different.

31. *Colaptes auratus* (Linn.), 1758. Yellow-shafted Flicker.

"Sydney Parkinson pinxt. 1768. *Picus auratus* Linne." (B.) "No. 22."

The Yellow-shafted Flicker commonly occurs in Newfoundland in the summer.

35. *Falco columbarius columbarius* Linn., 1758. Eastern Pigeon Hawk, a young bird.

"Peint d'après nature par Sydney Parkinson. *Falco columbarius* Faemina."

36. *Falco columbarius columbarius* Linn., 1758. Eastern Pigeon Hawk, male.

"Sydney Parkinson pinxt. 1767. *Falco columbarius* (mas). cera lutea, corpore fusco-subtus albido, caudo fusca fasciis linearibus quatuor albis." (B.) "[Sp]ecimen, bird shot in Newfoundland."

Banks collected this species, which he called *Falco vigil*, on 26th September, 1766 when he was at Chateau Bay.

38. *Canachites canadensis* (Linn.), 1758. Spruce Grouse.

Unsigned painting. "*Tetrao canadensis*, pedibus hirsutis, reatricibus nigris, apice fulvis, lituris duabis albis ad oculos. Linneus syst. nata." (B.) "[D]ry specimen Wood partridge. Male and female. [Newfound]land."

Banks commented on the abundance of "partridges" at Chateau Bay, and he described this species from a specimen taken there in September.

39. *Numenius borealis* (Forster), 1772. Eskimo Curlew.

"Sydney Parkinson pinxt. May 1767."

Banks considered that there were three species of curlew at Chateau Bay, all of which were good eating, but his only detailed description left to us is of the Hudsonian Whimbrel. The entry in his diary for 9th August contains the following passage : "The country . . . abounds in game, . . . But particularly at this Season, with a Bird of Passage, called here a Curlew, from his great likeness to the smaller sort of that Bird found in England ; their chief food is berries, which are here in

great abundance, of several sorts; with which they make themselves very fat, and I think (tho' prejudiced), almost as good as our Lincolnshire Ruff and Reeve: I have not yet been able to trace their course, but find, that by the latter end of September they arrive at Trinity Bay, after having coasted so far along the Island of Nfld, in vast abundance; where they proceed, or when they return I cannot learn: I have heard, but not from any certain Authority that they go to the vast Lakes at the Head of the River St. Lawrence." It is probable that these migrating birds were Eskimo Curlews since Banks says they were like whimbrel.

Forster's description of the Eskimo Curlew, published six years later, was of a bird sent to the Royal Society from the Governors of the Hudson Bay Company, as part of a collection made in connection with observations on the Transit of Venus. In 1785, three years later, Pennant published an engraving of Parkinson's painting without reference either to Banks or Parkinson, and in 1951 this engraving was reproduced by Mrs. Allen (fig. 33) who was then unaware that it was Parkinson's work.

- (b) *Paillou's Paintings* (14) *Contained in Brit. Mus. (Print Room) Vol. 199* B 4, ff. 89-110.*

These are all water-colour drawings on cartridge paper. They are bound in a volume of miscellaneous natural history paintings from Banks's collection.

89. *Melanitta perspicillata* (Linn.), 1758. Surf Scoter, female.

Unsigned painting. (B.) "Newfoundland." (D.) "Paillou."

The feathering on the culmen is clearly shown on this painting, but the pale colouring on the cheeks is undivided. Banks described a young male of this species taken at Chateau Bay on 13th September.

98. *Arenaria interpres* (Linn.), 1758. Ruddy Turnstone.

Unsigned painting. (B.) "Newfoundland" (D.) "Paillou."

Banks took this species at Chateau Bay in September, and had four skins in his collection from Labrador.

- *99. *Tringa melanoleuca* (Gm.), 1789. Greater Yellowlegs.

Unsigned painting. (B.) "[Dri]ed specimen. Newfoundland."

Banks gave detailed notes on this species, taken at Chateau Bay in August. Latham (1785: 153) and Pennant (1785: 468) based their descriptions on Banks's, and since Gmelin quotes them and no other author it would appear that this is a painting of the type specimen, and that Chateau Bay is the type locality.

100. *Eremophila alpestris* (Linn.), 1758. Horned Lark.

Unsigned painting of two males.

There are no MS. notes on this painting but we know from the MS. lists of the birds in Banks's collection that he had three skins of this species from Labrador.

Paillou has not shown any yellow areas on the face or throat, and his painting is inaccurate since it shows the downcurved eye stripe to be concurrent with the black chest-band, and the rufous area on the sides of the breast to extend right across it. It seems that this may be the "lark of St. Julian's Isle" to which Banks refers in his notes but he gives no description.

101. *Botaurus lentiginos* (Montagu), 1813. American Bittern.

Unsigned painting. (B.) "Dry specimen brought from Newfoundland." (D.) "Paillou."

Neither Latham nor Pennant refer to Newfoundland as within the range of this species. Banks mentions it in an incomplete list of his specimens but there is no description in the MS. that has survived.

102. *Falco peregrinus anatum* Bonaparte, 1838. American Peregrine Falcon, or Duck Hawk.

Unsigned painting of a young bird. (B.) "Newfoundland." (D.) "P[ai]ll[ou]."

Only the top of Dryander's ascription is visible as the painting has been trimmed. On the *verso* is a pencil sketch of the bird with measurements, the total length being given as 19 inches.

*103. *Buteo lagopus sancti-johannis* (Gm.), 1788. Rough-legged Hawk.

Unsigned painting. (B.) "No. 2 fore view. [D]ry specimen [N]ewfoundland *F. lagopus* 2nd." (D.) "Paillou. Lath. 77 n. 58." (Al.) "St. John's Falcon Latham."

Latham described the race from this and the next drawing. Pennant (*op. cit.*) added Hudson's Bay to Newfoundland, the only locality given by Latham, and referred to a specimen in the "Bl. Mus.", that is, Mrs. Blackburne's collection. However, since Latham's was the earlier publication and his account was copied first by Pennant (*op. cit.*: 201), and later by Gmelin who gave the species a scientific binomial (1788: 273), it would appear that this painting and the next are the types of the race. Moreover, in the McGill MS. there is a description of this subspecies with the date Sept. 20th, 1766, and the locality "Chateaux", so that the type locality should be Chateau Bay, Labrador, instead of Hudson Strait and Newfoundland (see Friedmann, 1950: 328); f. 107 is a third painting of the subspecies; it represents a young bird in the dark phase.

*104. *Buteo lagopus sancti-johannis* (Gm.), 1788. See f. 103.

Unsigned painting. (B.) "No. 2 back view [Ne]wfoundland. [D]ry specimen—*Lagopus* 2da." (D.) "Paillou. Lath. 77. n. 58." (Al.) "St. John's Falcon Latham Publ. in Pennant's *Arctic Zoology* t. 9, p. 200."

The reference to Pennant's plate is correct and the bird in it is directly copied from this painting save that it is shown standing on a bough instead of a rock; the background is "improved" to become a landscape, and the whole plate, which includes a representation of an immature bird (see f. 107) thought by Pennant to be a different species, bears Moses Griffith's signature and not that of the original artist. This painting and the last are together the types of the subspecies.

105. *Circus cyaneus hudsonius* (Linn.), 1766. American Marsh Hawk.

Unsigned painting of a juvenile bird ; on the back is a pencil sketch with some dimensions. (B.) "[Dry] specimen. [New]foundland. *Pygargus foemina*." (D.) "Paillou, Lath. 54. n. 34. b." (Al.) "White Rumped Bay Falcon Latham *Aeruginosus* ?."

Latham's description fits this painting very closely, and since he refers to a drawing in Banks's collection there seems little doubt that this is it. The synonymy of this race is given in considerable detail by Friedmann (*op. cit.* : 504-515) who, however, makes no direct reference to the White-rumped Bay Falcon.

- *106. *Accipiter gentilis atricapillus* (Wilson), 1812. American Goshawk.

Unsigned painting of a young bird. (B.) "Newfoundland. *Buteo americanus*." (D.) "Paillou, Lath. 79. n. 60." (Al.) "Newfoundland Falcon Latham." (Plate 35.)

Latham described the Newfoundland Falcon from this drawing (1781 : 79) and his account was copied by Pennant (1785 : 201). Gmelin based his *Falco novae-terrae* (1788 : 274) on both but the name does not appear in the *Cat. Birds Brit. Mus.* Friedmann places *novae-terrae* at the head of this list of synonyms of this race (1950 : 153) but in fact it seems clear that it is in fact the valid name, and that this painting is the type. In Banks's unpublished notes he described the breast and abdomen as white with black streaks but he had more than one specimen and Paillou's illustration shows the ochraceous black-streaked breast sometimes seen in young birds. Banks notes that he took the bird both at Croque and Chateau Bay and the type locality should be altered accordingly. I am grateful to Dr. Wetmore for having checked my identification of this drawing.

107. *Buteo lagopus sancti-johannis* (Gm.), 1788. Rough-legged Hawk.

Unsigned painting ; pencil sketch with measurements on *verso*. (B.) "Dry specimen. Newfoundland. *Lagopus prima*." (D.) "Paillou, Lath. 76. n. 57." (Al.) "Published in Pennant's *Arctic Zoology* tab. 9. p. 201. *Placentia* Falcon Latham."

This painting of a young Rough-leg in the dark phase was carefully copied by Moses Griffiths and engraved by Mazell for Pennant (*loc. cit.*) who called the bird the Chocolate-coloured Falcon ; the engraved bird is shown in the plate already referred to in the note on f. 104, which therefore depicts, though Pennant was unaware of the fact, both adult and immature stages of the above subspecies. Latham placed his description of the young bird next to that of the adult (1781 : 76, 77). Gmelin confused Forster's Chocolate-coloured Falcon, i.e. *Circus cyaneus hudsonius* (f. 105) which is a harrier, with Pennant's (1788 : 273), which is a buzzard. Friedmann (*op. cit.* : 329) refers only the upper figure in Pennant's plate to *B. lagopus sancti-johannis*.

108. *Stercorarius* sp. A young skua.

Unsigned painting of a young bird, possibly an Arctic Skua.

What remains of a scrap of writing on the back has been so rubbed that it is no longer legible, except for "Newfoundland" very faintly discernible in Banks's hand. On p. 78 of the transcript of his diary he writes : "The People here tell a remarkable Fact, if it is a true one : of a kind of Duck, called here Lords and Ladies,

who they say at times Pursue the Gulls, whom they persecute, till they make them dung ; which they catch with great dexterity, before it reaches the water ; and immediately leave off the chace." This is how the skuas behave to make the gulls vomit their catch. Banks was mistaken over the popular name which is that of the Harlequin Duck, a bird that dives for its food.

109. *Somateria spectabilis* (Linn.), 1758. King Eider.

Unsigned painting of a male. (B.) "[Ne]wfoundland." (D.) "Paillou." (Al.) "*Anas spectabilis*."

Latham and Pennant both call this bird the Bering Goose and neither records it from Newfoundland.

110. *Histrionicus histrionicus* (Linn.), 1758. Harlequin Duck.

Unsigned painting of the male and female. (B.) "Newfoundland where they were said to be male and female." (D.) "Paillou." (Al.) "*Anas histrionica*."

Neither Latham nor Pennant refers to this drawing, and although the former includes Newfoundland in the range of the species he gives Edwards as his authority. Banks described this duck in MS., but gave no locality.

6. BIRDS PAINTED BY SYDNEY PARKINSON ON COOK'S FIRST VOYAGE, 1768-71

Parkinson's Paintings (35) Contained in Vol. 1 of *His Unpublished Drawings in Brit. Mus. (Nat. Hist.) Zoology Library*, ff. 7-38.

Parkinson seems to have sketched the birds as they were collected but seldom finished his paintings of them. Fortunately, however, he made notes on the colour, usually on the back of the painting, and Banks usually added the date, locality and the name given to the bird by Solander at the time. In a number of cases Solander's unpublished descriptions of the animals collected on the first voyage have been useful in identifying these drawings, most of which are to scale.

7. *Milvago chimango* (Vieill.), 1816. Chimango Caracara.

Unsigned pencil sketch. "The colour of the beak pale blueish grey, the feet a dirty grey blue." (B.) "*Terra del Fuego*. No. 12, *Falco*."

This bird was not given a scientific name until Vieillot described it from notes published 1802-05 by Don Felix de Azara, a Spanish brigadier-general and distinguished naturalist and geographer who travelled extensively in South America during the last twenty years of the eighteenth century.

8. *Cyanoramphus zealandicus* (Latham), 1790. Red-rumped Parrot.

Unsigned painting. "Aa." (B.) "No. 5, Green perroquet." (D.) "S. Parkinson." (S.) "Otaquite." (Al.) "*Psittacus pacificus* V. S.N. XIII 329 n. 88."

When Latham described this bird from a specimen in the British Museum he erroneously gave New Zealand as its habitat, hence its inappropriate specific name.

It was confined to Tahiti where it was last collected in 1844; presumably it became extinct about that time.

Forster, f. 47.

9. *Vini peruviana* (P. L. S. Müller), 1766. Tahitian Blue Lory.

Unsigned pencil sketch. "Avinne. The face, throat and breast white the rump and rect. dirty grey turng. blue towards the edge, the feet and beak a bright orange claws black all the rest of the body wt dark ultramarine shaded wt. P.B. like shining blue steel." (B.) "No. 3, Blue Perroquet, Otahite." (D.) "S. Parkinson." (Al.) Latham 255-59. *Psittacus taiitianus* S.N. XIII 329 n. 91. *Psittacus* . . . ? Forster."

This small lory was first made known to European scientists by Commerson, naturalist to Bougainville on his voyage round the world in 1767-69. A coloured drawing remains with the Commerson MSS. in the Muséum d'Histoire Naturelle, Paris, to-day. In 1779 Buffon described this bird from Commerson's notes, and a plate by Martinet entitled "La Petite Perruche d'Otahiti," was published in 1783 in Daubenton's *Planches Enluminées*: 455, no. 2. Previously, however, Statius Müller had published the scientific name by which it is known in the supplement to his edition of the *Systema Naturae* (1776: 80). He quotes Buffon as his authority and it is probable that he knew him and had access to his MSS., but he must have muddled his notes and wrongly gave Peru as the habitat, hence the specific name.

Forster, f. 49, M.E. 12; Ellis, f. 14; Webber, f. 140.

10. *Calyptrorhynchus magnificus magnificus* (Shaw), 1790. Banksian Cockatoo.

Unsigned pencil sketch. "The whole bird black spots on the head and on the shoulders dirty white the breast feathers wav'd wt pale brown, the outer feathers of the tail scarlet and yellow wt narrow fascia of black. The iris dark brown the pupil black, the beak dirty white with the point of the upper mandible dark grey." (B.) "Black Cocatoa." (Al.) "Latham 260 n. 61."

Latham (1787: 63) says that Banks brought one of these birds back from New Holland. It is likely that Shaw used specimens sent back to England by John White, Surgeon-General to the settlement at Port Jackson, who stated that he deposited his birds in the Leverian Museum (1790: A2, 139); Arthur Phillip, the first Governor of New South Wales, also described this bird but failed to give it a scientific name (1789: 267).

11. *Anas flavirostris flavirostris* Vieill., 1816. Yellow-billed Teal.

Unsigned pencil sketch. "The beak very dark brown changing gradually into yellowish toward the base of the upper mandible the feet purple brown. The length of the wing in the natural size $7\frac{1}{2}$ inches. 17. *Anas antarctica*." (D.) "S. Parkinson." (B.) "Terra del Fuego."

Vieillot described this bird from specimens taken at Buenos Aires. He does not tell us who collected them.

Sol. MS. Z4: 1.

12. *Oceanites oceanicus oceanicus* (Kuhl), 1820. Wilson's Petrel.

Unsigned pencil sketch. "The head, neck breast and back soot colour which gradually grows paler on the coverts of the wings to their edges—which are bordered wt white, the

large wing feathers and the tail of the same sooty colour by shaded with M. blk the upper coverts of the tail and the sides pure white. the beak blk as are the Feet wt a spot of yellow on each web." (B.) "Decr. 22. 1768 *P. oceanica*." (D.) "S. Parkinson."

Kuhl described this bird (1820 : 136) referring to this drawing, but he also used a specimen which was then in Temminck's collection.

Solander MS. Z4 : 55.

- *13. *Pelagodroma marina marina* (Lath.), 1790. White-faced Storm Petrel.

Unfinished and unsigned painting. "The throat breast and belly white the Remiges, Rectrices and beak black the feet black on the webs marks of yellow as mark^d out in the figure." (D.) "S. Parkinson." (B.) "Dec. 23. 1768. Lat. 37 South. No. 6 *Procellaria aequorea*."

Latham's description was drawn up from this drawing in Banks's collection (1785 : 410, 1790 : 826) which therefore becomes the type. See also Kuhl 1820 : 137.

Sol. MS. Z4 : 57.

14. *Fregetta grallaria* (Vieill.), 1817. White-bellied Storm Petrel.

Unsigned, unfinished painting. "The large feathers of the wing, the tail, Beak and feet are black the belly and coverts of the tail white." (B.) "Dec^r 23d. 1768. Lat. 37. South No. 7. *Procellaria fregata*." (D.) "S. Parkinson."

Dr. Bourne tells me that Vieillot's type (1817, 25 : 418) is from Boudin's voyage, and is in Paris. He gives New Holland and the southern seas as its habitat. Actually this species does not breed in Australia but does so on Lord Howe Island, in the Austral Group, on Juan Fernandez, Tristan da Cunha, Gough Is., and probably, in the past, St. Paul and Amsterdam Islands.

The first part of Solander's note on *Procellaria fregata* (MS. Z4 : 51) refers to *F. grallaria* Vieill. the second to *F. tropica* Gould.

15. ? *Pachyptila belcheri* (Mathews), 1912. Slender-billed Whale Bird.

Unsigned pencil sketch. "The beak a pale blueish lead colour—the legs and toes pale blue wt a cast of purple the webs a dirty white." (B.) "Feb. 1st. 1769. Lat 59.00. 14 *Procellaria turtur*." (D.) "S. Parkinson."

This drawing appears to represent the above species but since Solander's description (MS. Z4 : 65) contains no measurements of the width of the bill one cannot be certain of this. Kuhl's *Procellaria turtur* (1820 : 143) was based on this drawing and therefore becomes indeterminate. A note on the ensuing changes in nomenclature is being published by Dr. R. A. Falla who kindly confirmed the above comments for me.

Ellis, f. 43.

16. *Pterodroma longirostris* (Stejneger), 1893. A gadfly petrel.

Unsigned pencil sketch. "The beak black the legs and toes pale violet, grey on the outermost toe the webs dirty white and partly grey veind wt dirty purple." (B.) "Feb. 15. 1769. Lat. 48.27, Long . 93.22 *Procellaria velox*." (D.) "S. Parkinson "

Solander gives blue feet as a diagnostic character for the gadfly petrels he collected across the Pacific (MS. Z4 : 68), which as Dr. W. R. P. Bourne has pointed out

(personal communication) probably included eight of the nine small gadfly petrels discussed by Falla (1942 : 111). Parkinson's bird must belong to one of the two species exploiting this zone of surface water in the south-eastern Pacific, that is to *Pterodroma cookii* G. R. Gray or to *P. longirostris*; as it has the short bill typical of the latter species it is very probably a member of the race of *longirostris* that nests at Juan Fernandez. *Procellaria velox*, which was restricted by Mathews to Parkinson's bird (1912 : 170), must therefore be regarded as a synonym of *Australata longirostris* Stejneger, 1893.

Sharpe thought that this was perhaps a drawing of the Blue Petrel *Halobaena caerulea* (Gm.) but Solander's description does not apply to that bird.

17. *Macronectes giganteus* (Gm.), 1789. Giant Petrel, Stinker or Nellie.

Unsigned pencil sketch. (B.) "*Procellaria gigantea* α. 18 *Procellaria gigantea* Febry 2nd, 1769. Lat. 59 S." (D.) "S. Parkinson."

There was a specimen in the British Museum.

Parkinson, f. 18; Forster, f. 93a; Ellis, ff. 39, 42; Solander MS. Z4 : 73.

18. *Macronectes giganteus* (Gm.), 1789. Giant Petrel, Stinker or Nellie.

Unsigned painting, complete except for the legs and feet. "Mem. the feet are Gray." (B.) "Decr. 23. 1768. *Procellaria gigantea* β." (D.) "S. Parkinson."

See notes on f. 17.

19. *Procellaria equinoctialis aequinoctialis* Linn., 1758. White-chinned Petrel, Shoemaker, or Cape Hen.

Unsigned pencil sketch, the beak coloured. (B.) "19. *Procellaria fuliginosa*. Feb. 2nd, 1769, Lat. 58." (D.) "S. Parkinson."

Although this drawing is uncoloured except for the bill, Solander's description (MS. Z4 : 77) makes it quite clear that it represents the White-chinned Petrel described by Linnaeus from George Edwards's drawing.

20. *Pterodroma incerta* (Schlegel), 1863. Schlegel's Petrel.

Unsigned and unfinished painting. "Mem. The beak is black the legs and upper part of the feet pallid white the lower part where mark'd off dark brown the claws black the under part of the whole bird is white." (B.) "Decr. 23, 1768. No. 4 *Procellaria sandaleata*." (D.) "S. Parkinson."

This painting and Solander's description of the bird depicted (MS. Z4 : 89) have been much discussed and it has been suggested that two species were involved since it seemed clear that although Solander had described *P. incerta* the painting bore some resemblance to *P. arminjoniana* (Gigl. & Salv.). A careful comparison of the plate with series of skins of *arminjoniana* and *incerta* shows that it is closer to the latter species, especially with regard to the structure of the bill, and the colouring of the chin, throat and wings. The drawing is dated and labelled in Banks's hand, and in his diary he says that on 22nd Dec. 1768, "Dr. Solander and myself went out in the boat and shot . . . two shearwaters, both prov'd new: *Procellaria*

Gigantea and *sandaliata*". Now it is much more likely, as Dr. Bourne has pointed out to me, that *incerta* rather than *arminjoniana* would be in the same zone of surface water as *Macronectes gigantea*, and Solander's description of *sandaliata* as a bird 17½ inches long could scarcely apply to *arminjoniana*. It does appear, therefore, that both the drawing and the description are of *P. incerta*.

21. *Pterodroma inexpectata* (Forster), 1844. Mottled Petrel, the Rain Bird of New Zealand.

Unsigned pencil sketch. "The bill entirely black the iris of the eye brown pupil black." (B.) "15 *Procellaria lugens*. Feb. 1st., 1769. Lat. 59.00." (D.) "S. Parkinson."

Details of the colouring of this petrel are given by Solander (MS. Z4: 91). Since the throat and jugular area are white and the breast grey with wavy white markings we cannot accept Sharpe's suggestion that it was *Pterodroma brevirostris* (Lesson) a wholly dark grey species. Parkinson's drawing shows the scutellations on the head and the ruffled inner white webs of the primaries which are conspicuous in some skins of *P. inexpectata*, a bird with a very wide range, described by Forster (ed. Lichtenstein) in 1844. The name *Procellaria lugens* with a reference to Banks's i.e. Parkinson's drawings, was published by Kuhl (1820: 144-145, pl. XI, fig. 9) but his figure and description could apply either to the species known as *Pterodroma brevirostris* Lesson, or to the dark phase of *P. mollis* Gould, and therefore becomes indeterminate (Bourne, *Ibis*, 1957).

Forster, f. 97.

22. *Pterodroma inexpectata* (Forst), 1844. Mottled Petrel, the Rain Bird of New Zealand.

Unsigned pencil sketch. "The beak black the legs and that part of the foot next them dirty white the remainder black." (B.) "Feb^y 3^d, 1769 15, *Procellaria lugens*. Sketch made by mistake." (D.) "S. Parkinson."

See notes on f. 21.

23. *Puffinus griseus* (Gm.), 1789. Sooty Shearwater or New Zealand Muttonbird.

Unsigned pencil sketch. "The beak fuscus the lower mandible paler to blueish the feet of the same colour." (B.) "23 *Nectris fuliginosa*. Feb. 15. 1769. Lat. 48: 27. Long. 92." (D.) "S. Parkinson."

A specimen was in the Leverian Museum.

Forster, f. 94; Solander MS. Z4: III.

24. *Puffinus assimilis* ? subsp. Little or Allied Shearwater.

Unsigned pencil sketch. "The beak blue grey towards the back and the point black the legs and feet the same colour as in the *Procellaria cyanopeda*." (B.) 24. "*Nectris munda*." Feb. 15. 1769. Lat. 48.27. Long. 93." (D.) "S. Parkinson."

On pp. 115-116 of MS. Z4, Solander describes two birds under the name *Nectris munda*, one taken on 15th February, 1769, which was the bird drawn by Parkinson, and the other on 6th January, 1770, when the *Endeavour* was west of Hokianga, New Zealand. Parkinson's sketch is clearly the type of Kuhl's *Procellaria munda* (1820: 146), now a *nomen rejectum*. Precise classification of these southern ocean forms of *P. assimilis* is still unsettled.

25. *Diomedea exulans* Linn., 1758. Wandering Albatross.

Unsigned painting, not quite finished, of an immature bird. "The face and throat white as mark^d off one the figure the whole body above fusca palido the belly the feet whitish wt a cast of blue and the nails white." (B.) "Dec^r. 23 . 1768. Lat. 37 South. No. 9 *Diomedea exulans*."

Forster, f. 99, A.M. 43 ; Ellis, f. 44.

26. *Phoebetria palpebrata* (Forst.), 1785. Light-mantled Sooty Albatross.

Unsigned pencil sketch. "The bill intirely black, the iris of the eyes yellow Brown the pupil black the skin that goes along the beak from the head pale violet clouded w^t pale brown." (B.) "13 *Diomedea antarctica* Feb. 1st 1769 Lat. 59." (D.) "S. Parkinson."

Solander described a Light-mantled Sooty Albatross (MS. Z4 : 9) caught on the day Parkinson made this sketch and as they both used the name *Diomedea antarctica* there seems no doubt about the identification of this drawing.

A.M. 49 ; Forster, f. 102.

27. *Diomedea chrysostoma* Forster, 1785. Grey-headed Albatross.

Unsigned pencil sketch. "The beak black excepting the back of the upper mandible and part of the under one which is a dirty greenish white." (B.) "21. *Diomedea profuga*. Feb^ry 3^d 1769. Lat. 57.30." (D.) "S. Parkinson."

Sharpe, following Gray & Salvin, thought that this was a sketch of *Diomedea chlororhynchos* Gm., but, according to Murphy (1936 : 521), that species has not been found on the west coast of South America or in the eastern Pacific. Parkinson's note on the colour of the bill suggests that his bird was an immature specimen of *D. chrysostoma* and this is confirmed by Solander's account (MS. Z4 : 11-12) of "*Diomedea profuga*" taken on 3rd and 15th February, 1769, that is SW. and W. of Cape Horn.

Forster, f. 101.

28. *Fregata magnificens* Mathews, 1914. Magnificent Frigate Bird.

Unsigned pencil sketch. "The Beak is of a lead colour whitish towards the base of the upper mandible the bag is of a dirty orange the feathers of the whole body is quite black having a cast of Purple on the back the feet and Claws lead Colour." (B.) "Rio Janeiro. *Pelecanus aquilus* B. Specimen lost No. 3. To be coloured from No. . . . in Log No." (D.) "S. Parkinson."

Solander MS. Z4 : 19.

29. *Phalacrocorax albiventer* (Lesson), 1831. King Shag.

Pencil sketch, unsigned. "The beak and all the bare part round the eye is a brownish grey—the point only excepted which is whitish the iris of the eyes grey pupil black. the feet something reddish." (B.) "Terra del Fuego. No. 11. *Pelecanus antarcticus*." (D.) "S. Parkinson."

In the entry in his diary for 27th January, 1769, Banks says: "at noon a shag *Pelecanus antarcticus* came on board the ship and was taken." Solander (MS. Z4 : 15) gives a description of the bird and says that it was dusky black above, white below and that there were two white wing bars. He also gives the measurements and some other details. Dr. R. A. Falla has kindly examined this drawing

and Solander's notes, and he says that the bird was clearly a sub-mature individual of the above species.

30. *Sula bassana serrator* Gray, 1843. New Zealand Gannet or Takapu.

Unsigned pencil sketch, the head, tail and feet coloured. (B.) "1. *Pelecanus sectator*. Ahie ne Mauwe." (D.) "S. Parkinson."

According to Solander (MS. Z4 : 17) this bird was taken on 24th December, 1769.

31. *Phaethon rubricauda melanorhynchus* Gm., 1789. Red-tailed Tropic Bird.

This plate consists of two paintings, a signed one of the bird in flight, another, unsigned, of its head. "Sydney Parkinson pinxt 1769. Tawai. *Phaëthon erubescens*." On the lower painting, i.e., that of the head, is written in an unknown hand "on the same Paper with the Bird."

Latham refers to a specimen in Banks's collection. The upper painting has been reproduced in Vol. I of the Hakluyt Society's edition of Cook's journals.

Ellis, f. 48 ; Solander MS. Z4 : 29.

32. *Larus maculipennis* Lichtenstein, 1823. Patagonian Gull.

Unsigned pencil sketch. "The beak and feet the colour of minium- the breast and belly white w^t a cast of red the same as in the Coccoatoo w^t the red crest the claws dark brown, the length of the Wing in the natural size 11 inches." (B.) "*Larus gregarius*. Terra del Fuego." (D.) "S. Parkinson."

This sketch was identified by Sharpe as *Larus glaucoodes* but in 1925 Dwight pointed out (p. 299) that the names *maculipennis* and *glaucoodes* had been given to birds of one and the same species but in different stages of plumage.

Solander MS. Z4 : 35.

33. *Gygis alba candida* Gm., 1789. White Tern.

Unsigned pencil sketch. "Eperai. The whole bird intirely white the beak a lead colour, as are also the toes, the webs between white the Rachi of the wing feathers pale brown and those of the tail black." (B.) "No. 2 Egg Bird." (S.) "Otahite." (D.) "S. Parkinson."

This species was represented in the Leverian Museum. A bird belonging to another race of the species was drawn by Ellis (f. 56) at Christmas Island in 1778.

34. *Ptilinopus purpuratus* (Gm.), 1789. Latham's Purple-crowned Pigeon.

Unsigned painting, the colouring of the feet has not been completed. "Oopau." (D.) "Parkinson." (B.) "No. 4. Green Dove." (S.) "Otahite." (AL) "*Columba porphyracea* Forster *purpurata* S.N.XIII n. 64."

A specimen from Tahiti was in the Leverian Museum.

Forster, f. 140.

35. *Gallicolumba erythroptera* (Gm.), 1789. Latham's Garnet-winged Pigeon.

Unsigned, partly coloured, pencil drawing. "Amāhò. The red on the neck brighter some of a fine shiny purple." (B.) "No. 1 *Columba pectoralis*." (S.) "Otahite." (AL) "Latham 2 p. 624 n. 12. *Columba erythroptera* S.N.XIII 775 n. 10." (D.) "S. Parkinson."

Notes on this species are given under Forster's f. 136.

M.E. 30.

36A. *Ramphocelus bresilius* (Linn.), 1766. Brazilian Tanager.

Unsigned pencil sketch, with some touches of bright red. "The whole wings and tail black a little inclining to brown, the feathers of the Back at their bases are black and their edges scarlet which makes it look darker—the scarlet of the Belly is more yellow than the rest. the legs fusca the beak black excepting the oblong space mark'd of on the base of the under mandible which is white." (D.) "S. Parkinson." (B.) "No. 1. Rio Janeiro. Preserv^d dry in Box no." (Al.) "*Loxia mexicana*."

Sharpe identified this as a drawing of *Xipholena atropurpurea* but this is incorrect ; it is quite a good representation of the above tanager.

36B. *Turdus magellanicus* P. P. King, 1830. Magellanic Thrush.

Unsigned pencil sketch. (D.) "S. Parkinson." (B.) "No. 11. *Turdus*. Terra del Fuego."

This sketch agrees very well with pl. 14, *Cat. Birds British Museum*, 5.

37A. *Sporophila caerulescens* (Vieill.), 1817. Screaming Seedeater.

Unsigned painting of a male bird, only the eye is uncoloured. (D.) "S. Parkinson." (B.) "No. 2. Rio de Janeiro. Case no."

Vieillot based his description on notes from de Azara ; see f. 7.

37B. *Volatinia jacarina* (Linn.), 1766. Blue-black Grassquit.

A charming signed painting of the bird on a stem of grass. "Sydney Parkinson pinx^t ad vivum 1768. *Loxia nitens*." (B.) "Brasil. Of the Coast of Brasil Nov. 8th, 1768."

Solander MS. Z4 : 119.

38A. *Motacilla flava* Linn., 1758. A young Yellow Wagtail.

Signed painting. "Sydney Parkinson pinxt. 1768 *Motacilla avida*." (B.) "Sept^r 28, 1768. Lat. 19.00°. north."

Banks and Solander tell us that this bird flew on board (MS. Z4 : 121).

Ellis, f. 91.

38B. *Oenanthe oenanthe* (Linn.), 1758. European Wheatear.

Signed painting. "Sydney Parkinson pinx^t ad vivum 1768 Sept. 110.P.6. Sept. 4. 1768. *Motacilla velificans*." (B.) "Off the coast of Spain."

Solander MS. Z4 : 123 ; Ellis, f. 90.

An additional drawing by Sydney Parkinson from Cook's first voyage, bound with some of his other natural history drawings in Brit. Mus. (Print Room) vol. 199* B 1, f. 52.

Pterodroma mollis feae (Salvadori), 1899. Soft-plumaged Petrel. (Pl. 36b.)

Signed painting. "Sydney Parkinson pinxt. 1768." (B.) "Oct 7 1766 Lat. . . . north."

According to Banks's diary this bird was taken at 6° 50' N. 23° 46' W. on 15th October, 1768, to the south of the Cape Verde Islands. Banks says that he shot "a bird of the shearwater kind . . . it prov'd to be not describ'd ; it was about

as large as the Common, but it differ'd from it in being whiter, especially about the face. Call'd it *Procellaria crepidata*, as its feet were like the gulls shot last week, black without but white near the leggs." In Solander's description of it (MS. Z4 : 87) which was published in full by Mathews (1912 : 164-165), he states "Habitat intra tropicos", and refers to a plate which Mathews was unable to find. The date on the back seems quite irrelevant. At that time Banks was at Croque on the Newfoundland coast, where this petrel does not occur.

Dr. W. R. P. Bourne comments (personal communication) that the figure is an excellent likeness of *P. mollis*, and lacks dark shoulder patches, a character of the light phase of the North Atlantic race *faae*; in a separate pencil sketch, to scale, the bill is 27 mm. long, which is close to the mean, 27.8 mm., for the subspecies.

An abridged version of Banks's diary was published in 1896 by J. D. Hooker, and in it the description of *Procellaria crepidata* quoted above. The name had, however, been published by Gray in 1844, from Solander's MSS., as a synonym of *P. melanopus* Gm., and must therefore be regarded as a *nomen nudum*.

7. BIRDS PAINTED BY GEORG FORSTER ON COOK'S SECOND VOYAGE, 1772-75

Forster's Paintings (140) Contained in Vol. I of *His Unpublished Drawings in Brit. Mus. (Nat. Hist.) Zoology Library*, ff. 32-168.

Most of these water-colour drawings which are now in the British Museum (Natural History), are unsigned, the "Ge. Forster" on the bottom left hand corner having been added later by Dryander. Georg Forster, however, often named and dated the drawing, sometimes adding the vernacular name and the locality; the locality is not always in his hand but was now and then written on the back or the front of the drawing by his father. I have not noted the position of the MS. notes, nor have I tried to attribute authorship to the later comments, to the references to Latham's publications, or to Gmelin's edition of the *Systema Naturae* etc. We have, fortunately, a photographic copy of the fragmentary diary (now in the Muséum d'Histoire Naturelle, Paris), kept by Georg Forster during the first part of the voyage, which has been of great assistance in deciding which comments were in his hand; a photograph of a letter written by his father to Linnaeus in 1775 has also been used as a guide. I feel sure that in spite of these aids I must have made some mistakes in attribution which would be obvious to an expert in calligraphy, but I hope that by calling attention to the various people who have annotated these drawings some misconceptions about localities of some of the specimens collected on this voyage will be cleared up. In many cases where no locality has been mentioned it has been possible to trace it by reference to the *Descriptiones Animalium*, edited by Lichtenstein from Reinhold Forster's notes, and published in Berlin in 1844: It is referred to only by date and page number in the following notes. The descriptions in it often begin with the date, the scientific name and then, in brackets, *Fig. pict. G.* Whether this makes the drawing the type seems doubtful.

Ff. 82, 87 (head only) and 95 are being reproduced in Vol. 2 of the Hakluyt Society's edition of Cook's journals.

32. *Sagittarius serpentarius* (J. F. Miller), 1779. Secretary Bird.

Unsigned painting, made at the Cape of Good Hope in 1775 (1844 : 396). (D.) "Ge. Forster, the background by Hodges." (Al.) "*Falco sagittarius, serpentarius*, S.N.XIII, 250" is lightly pencilled across the front.

The painting is slightly stained, possibly by rain when it was being painted, as the background shows a very stormy sky. We do not know the origin of Miller's specimen but Latham (1781 : 31) says that his own description is drawn from three birds he had seen in captivity in England, two of which had later been given to the Leverian Museum.

*33. *Polyborus plancus plancus* (J. F. Miller), 1777. Southern Caracara.

Unsigned painting of a bird collected on 26th Dec., 1774, in Terra del Fuego (1844 : 321). "*Falco Plancus*." (J. R. F.) "[T]erra del Fuego." (D.) "Ge. Forster. published by J. F. Miller tab. 17." (Al.) "S.N.XIII, 257, Lath. 34, n.9."

Miller's published plate (1777 : no. 17), a close copy of this one, shows the date 1776 on the rock on which the bird is perched ; this painting appears to be the type of the species. No reference to a specimen is made by Miller or Latham (1781 : 34).

34. *Phalcoboenus australis* (Gm.), 1788. Forster's Caracara.

Finished painting. "Statenland, Jany. 3rd. 1775." (J. R. F.) "*Falco leucurus*." (Al.) "*—australis*, S.N.XIII, 259. Lath.40, n.19." (D.) "Ge. Forster."

Latham's notes on this bird were based on J. R. Forster's information but apparently he did not see this drawing. Forster himself was not sure whether this bird was the female of *Polyborus plancus*, or a different species (1844 : 323).

*35. *Accipiter novaehollandiae novaehollandiae* (Gm.), 1788. White Goshawk.

Unsigned pencil sketch of a bird captured by Captain Furneaux in Tasmania in the late summer of 1773, before he joined Captain Cook at Queen Charlotte's Sound in New Zealand (1844 : 70). "*Falco leucaëtos*, New Holland." (J. R. F.) "Van Diemen's Land." (D.) "Ge. Forster." (Al.) "*—novae hollandiae* S.N.XIII : 264. New Holland White Falcon Lath. p. 50. n. 18."

The drawing was made from the dried skin. Latham says that he was indebted to J. R. Forster for his account.

36. *Falco novaeseelandiae* Gm., 1788. New Zealand Bush Hawk or Karearea.

An unsigned, unfinished painting of a sub-mature female collected 4th April, 1773 (1844 : 68). "*Falco Harpe. mas adultus*. Irides dark brown." (J. R. F.) "New Zealand Charlotte's Sound." (D.) "Ge. Forster." (Al.) "*—nova Seelandia* S.N.XIII. 268."

Latham's notes on this species were based on specimens in the Leverian and the British Museums. Mr. Graham Turbott kindly drew my attention to the fact that Forster had mistaken the sex of these birds.

37. *Falco novaeseelandiae* Gm., 1788. New Zealand Bush Hawk or Karearea.

Unsigned, unfinished painting of a young female collected in Dusky Sound. "*Falco Harpe mas junior*." (J. R. F.) "New Zealand Dusky Bay." (D.) "Ge. Forster." (Al.) "*—nova Seelandia* S.N.XIII, 268."

38. *Falco novaeseelandiae* Gm., 1788. New Zealand Bush Hawk or Karearea.

Unsigned but finished painting of an old male. "*Falco Harpe. Fem.* Kare-area. N.Z. Charlotte's Sound." (D.) "Ge. Forster." (Al.) "*—nova Seelandia* S.N.XIII. 268."

39. *Ninox novaeseelandiae novaeseelandiae* (Gm.), 1788. Morepork or Ruru.

Finished painting, unsigned, of a bird collected 30th May, 1773 (1844 : 71). "*Strix fulva. herooroo.* Queen Charlotte's Sound, N.Z." (Al.) "*—nova Seelandia* S.N.XIII : 296. Latham p. 149 no. 39."

Latham acknowledges his debt to J. R. Forster for his notes on this bird.

40. *Artamus leucorhynchus* (Linn.), 1771. White-breasted Wood Swallow.

Unsigned painting of one of the birds collected from shrubs on the shore of New Caledonia (1844 : 272). "*Loxia ? melaleuca.* Poemanghee. Sept. 7th. ♀ 1774." (D.) "Ge. Forster." (Al.) "*Lanius leucorhynchus* S.N.XIII : 305."

41. *Laniarius ferrugineus ferrugineus* (Gm.), 1788. Cape Boubou Shrike.

Unsigned painting of a bird collected at the Cape of Good Hope in 1775 (1844 : 398-399). (J. R. F.) "Cape of Good Hope." (D.) "Ge. Forster." (Al.) "*Lanius cafer.* Lath. 163 n. 8. —*ferrugineus* S.N.XIII : 306."

Lichtenstein (1844, *loc. cit.*), in a footnote, says that Forster is describing Latham's *Lanius boulboul* but his notes on colour clearly apply to *L. ferrugineus*. Latham described this species from specimens in the collections of Miss Blomefield and Banks (1781 : 164).

42. *Prosopaea tabuensis tabuensis* (Gm.), 1788. Red-breasted Musk Parrot.

Unsigned painting. "Octob. 12, 1773. *Psittacus hysginus*." (J. R. F.) "Tonga Tabboo." (D.) "Ge. Forster." (Al.) "Lath. p. 214. n. 16. —*tabuensis* S.N.XIII : 317. n. 56. amsterdam.

The bird depicted was apparently taken at Eua in the Tonga group (1844 : 159). It lacks the conspicuous blue collar of the type specimen in the Leverian Museum which was described and illustrated by Latham and given a binomial by Gmelin. No blue collar was mentioned by Forster, neither does it appear in the painting by Ellis (f. 11) of another bird from Eua nor in one which was sent to the Edinburgh University Museum (Jardine & Selby, 1829 : pl. 74) apparently with no note of its locality. Jardine & Selby state that they knew of only three specimens : one of which was the type in the Leverian Museum which eventually went to Vienna (von Pelzeln, 1873 : 30) ; another belonged to a Mr. Leadbeater ; the third, in Edinburgh, may have been a later acquisition, possibly presented in 1826 by Dr. MacLeod who then gave a number of birds from New Zealand and other parts of the Pacific. Latham, writing to Sir William Jardine on 9th September, 1831, stated that he had examined only two specimens (letter with Sir Norman Kinnear). Sharpe (1906 : 199)

believed that the bird figured by Ellis could not be identified as *P. tabuensis* on account of the absence of the blue collar. He pointed out that Salvadori (1891 : 496) had suggested that Forster's plate, which agrees with Ellis's, represented *P. koroensis* Layard (currently the race of *tabuensis* from the island of Koro in the Fiji group). More recently, however, Amadon (1942a : 10) has shown that a few birds taken by later explorers on Eua have the blue collar reduced to the same extent as in *P. tabuensis koroensis*. He goes on to lend support to a statement by Salvadori (1891 : 495) that *tabuensis* was introduced into Eua from Fiji and he suggests that the present population of Eua may thus be a hybrid one. In the light of this, that population may conveniently be regarded as belonging to the nominate race, *Prosopopia tabuensis tabuensis*. Amadon states that this species was actually taken by Cook's naturalists on the island of Tongatabu. This, however, appears doubtful. Although "Tonga Tabboo" is pencilled on the back of Georg Forster's drawing in what I take to be J. R. Forster's hand, the latter states categorically (*op. cit.* : 159) "Habitat in insula Eaoowe ubi unum eius specimen emi." . . . Cook was at Eua on the 2nd and 3rd of October, 1773, and at Tonga from the 4th to the 7th; this painting was made at neither place as on 12th October, the date pencilled on the plate, the *Resolution* had been at sea for five days, on her way to New Zealand.

43. *Eunymphicus cornutus* (Gm.), 1788. Crested Parakeet.

Unsigned painting, not quite finished. "*Psittacus bisetis*. N. Caledonia. 11th September. 1774." (D.) "Forster." (*Al.*) "Lath. p. 248, n. 48. — *cornutus* S.N.XIII : 327. n. 81."

Latham refers to a fine and perfect specimen in Banks's collection, which he believed to be the only one in England (1781 : 248).

A. J. Cain (1955 : 432) considers that *Eunymphicus cornutus* is congeneric with *Purpureicephalus spurius* (Kuhl) of south-western Australia, and that *Eunymphicus* therefore should be regarded as a synonym.

P.R.20, 64 ; A.M.3.

44. *Cyanoramphus novaeseelandiae* (Sparrm.), 1787. Red-fronted Parakeet or Kakariki.

Unsigned pencil sketch. "*Psittacus pacificus* N.Z." (D.) "Ge. Forster." (*Al.*) "Latham p. 252-56. S.N.XIII : 329. n. 88."

See also ff. 45, 46, A.M.2 and Ellis f. 12.

45. *Cyanoramphus novaeseelandiae* (Sparrm.), 1787. See pls. 44 and 46.

Unsigned pencil sketch. "*Psittacus pacificus* Var. N.Z. S.C.Q.C.S.N.Z. 6 N. 1774." (D.) "Ge. Forster." (*Al.*) "Latham p. 252-56. β. S.N.XIII : 329. n. 88."

The letters in Georg Forster's hand refer to Queen Charlotte's Sound, New Zealand, where Cook stayed for about three weeks in October and November 1774. J. R. Forster states that this parakeet occurs throughout the South Island of New Zealand (1844 : 73).

46. *Cyanoramphus novaeseelandiae* (Sparrm.), 1787. See ff. 44, 45.

Unsigned painting. "*Psittacus pacificus* Varietas N.Z. Dusky Bay. April 5th. 1773. Kaghareeku." (D.) "Ge. Forster." (*Al.*) "Lath. p. 252, n. 56. β.S.N.XIII : 329. n. 88."

47. *Cyanoramphus zealandicus* (Latham), 1790. Red-rumped Parrot.

Unsigned painting of a bird taken at Tahiti in 1774 (1844 : 238). "*Psittacus pacificus*. Var. *Tropicorum*. Tahaitee." (D.) "Ge. Forster." (Al.) "γ S.N.XIII : 329. Latham as well as Forster seems to confound this with a New Zealand Parrot."

Salvadori mentions this drawing (1891 : 580) in the synonymy of *Cyanoramphus erythronotus* (Kuhl) 1820 which Peters regards as synonymous with *C. zealandicus*. Sharpe's remarks (1906 : 181) are not accurate as he remarks that Salvadori identifies it as *C. auriceps* (Kuhl) 1820 which is not the case ; he makes another slip in saying that it is Var. C of Latham's Pacific Parrot (1781 : 253) instead of Var. B which, as he says, was distinguished by its red rump. Var. C was a New Caledonian bird, and Latham's description agrees well enough with that of *C. novaezealandiae saisseti* Verreaux & Des Murs 1860. Latham saw a fine specimen of *C. zealandicus* in Banks's collection (1781 : 249) and thought that it came from New Zealand ; confusion of localities seems to have prevented him from identifying the bird he discusses on p. 253 with that which he describes in detail on p. 249. J. R. Forster, as far as one can judge from the notes on the paintings, did not confuse the New Zealand (ff. 44-46) and Tahitian birds, but thought that the latter was a variety of the former ; however when Lichtenstein published his MS. two species were described as *Psittacus pacificus*, the New Zealand one on pp. 73-74, and the Tahitian one on p. 238. *C. zealandicus* apparently became extinct about 1844 when a specimen was taken by Lieutenant de Marolles (Rothschild, 1907 : 69).

Parkinson, f. 8.

48. *Charmosyna palmarum* (Gm.), 1788. Green Palm Lorikeet.

Unsigned painting of a specimen collected in Tanna, New Hebrides (1844 : 259). "*Psittacus palmarum*. Tanna. 16th Aug. 1774." (D.) "Ge. Forster." (Al.) "Lath. p.253 n.57. S.N.XIII : 329. n.89."

The male and female of this species were described as *Psittacus palmarum* and *P. pygmaeus*, respectively, by Gmelin (1788 : 329-330), the description of the latter being based on Latham's Pygmy Parrot (1781 : 256) a specimen of which was in the Leverian Museum and was said to have come from Tahiti. Latham's type, labelled "from Botany Bay" in the sale catalogue of the Leverian Museum, went to Vienna (von Pelzeln, 1873 : 31 ; Sassi, 1928 : 53). *C. palmarum* is now confined to the New Hebrides and some nearby islands, and it seems most improbable that it ever occurred in Tahiti. J. R. Forster (*loc. cit.*) gives only Tanna as the habitat. Amadon considers *Charmosyna* to be a subgenus only and places this species in *Vini* (1942 : 2).

49. *Vini peruviana* (P. L. S. Müller), 1776. Tahitian Blue Lory.

Unsigned painting of a bird collected in Tahiti in 1773 (1844 : 201). The colours here appear to have deteriorated with time. "*Ps. sapphirinus* Taheitee." (Al.) "Latham p. 255, 59. *Psittacus taitianus* S.N.XIII : 329. n. 91."

One of these birds was in the Leverian Museum. Full notes on the species are given under Parkinson's f. 9.

M.E. 12 ; Webber, f. 140 ; Ellis, f. 14.

50. *Nestor meridionalis meridionalis* (Gm.), 1788. Green Kaka.

Unsigned painting of a bird collected in the South Island of New Zealand in 1773 (1844 : 72). "*Psittacus hypopolius*. Kaghaa. N.Z. Dusky Bay." (D.) "Ge. Forster." (Al.) "Latham p. 264-70. —*meridionalis* S.N.XIII : 333.n.98."

Latham's account was of a bird in the Leverian Museum.

A.M. 1 ; P.R. 13 ; Ellis, f. 15.

51. *Agapornis cana cana* (Gm.), 1778. Grey-headed Lovebird.

Unsigned painting of a bird from Madagascar (1844 : 399). "*Psittacus* May 4th. 1775. Madagascar." (D.) "Forster." (Al.) "—*cinereocephalus* mas Brisson. *Poliocar* Forst. Lath. p.315, n.122. *canus* S.N.XIII : 350. n.131."

Georg Forster drew this from a living bird, probably in the extensive menagerie at the Cape of Good Hope. Latham saw one in the Leverian Museum.

52. *Callaeas cinerea* (Gm.), 1788. Orange-wattled Crow or South Island Kokako.

Unfinished painting of a bird collected at Queen Charlotte's Sound, New Zealand. "*Callaeas cinerea*. S.C.Q.C.S.N.Z. 4 3d N. 1774." (D.) "Ge. Forster." (Al.) "Lath. ind. ornithol. 149. Wattlebird Lath.1 p.364. t. 14. *Glaucopsis cinerea* S.N.XIII : 363."

One of these birds was in the Leverian Museum. J. R. Forster states that it occurs in both islands of New Zealand ; this comment appears more than once in his notes on New Zealand birds although he did not visit the North Island ; the *Adventure* did, however, and it seems that Captain Furneaux may have brought him skins of the northern species from Poverty Bay. It is quite certain that Banks and Solander collected birds from the North Island as they refer to their fine specimens but there is a curious blank in surviving MSS. from that point of view.

M.E. 6 ; P.R. 12 ; A.M. 19.

*53. *Graucalus caledonicus* (Gm.), 1788. New Caledonian Cuckoo-shrike.

Unsigned painting of a specimen taken 7th Sept., 1774 (1844 : 260). "*Corvus cinereus*. N. Caledonia." (D.) "Ge. Forster." (Al.) "—*caledonicus* S.N.XIII : 367. Lath. p. 377. n. 7."

This painting is the type since Latham (1781 : 377) tells us that he described the bird from a drawing in the collection of Sir Joseph Banks.

M.E. 14 ; P.R. 19 ; A.M. 6.

54. *Aplonis striatus* (Gm.), 1788. Glossy Starling.

Unfinished painting of both a male and female collected 8th Sept., 1774 (1844 : 261). "*Coracias pacifica* foem. mas. N. Caledonia." (D.) "Ge. Forster." (Al.) "—*striata* S.N.XIII : 381. Lath. 414. n. 13. tab. 16. Il faut les copier sur deux feuilles les faire de cet grandeur."

Forster's name of *Coracias pacifica* was applied by Latham (1801 : xxvii) to another bird, *Eurystoma orientalis* Linn., but, as Sharpe points out (1890 : 127), he had earlier given a brief description of this starling and reproduced Georg Forster's painting (1781 : 414, pl. 16). This shows the male as a striped instead of an iridescent bird and, as Dr. Cain has suggested to me, Forster was using a standard water-colour technique in employing a brilliant underlay before washing over with a duller colour

to give the effect of a sheen. Latham copied this unfinished painting of the male but gives a much better plate of the female although he used the outline of Forster's sketch. He gives no acknowledgment to the Forsters in this instance.

M.E. 37; A.M. 30.

55. *Conopoderas caffra* ? subsp. Long-billed Warbler.

Unsigned painting of a bird from Tahiti in the Society Group, captured in 1773 (1844 : 163). "Oriolus Musa." (D.) "Ge. Forster." (Al.) "Otahaite."

The races of this species and their distribution have been discussed by Murphy & Mathews (1928, 1929). Georg Forster's bird agrees to some extent with *C. caffra* (Sparrm.), 1786 from Tahiti but is larger, the exposed culmen in the drawing being 34 mm. whereas in the birds measured by Murphy & Mathews it is only 25-28 mm. J. R. Forster (loc. cit.) states that the bird was $8\frac{1}{2}$ inches long and the size of a common starling. His measurements were clearly not taken from this drawing of a bird $9\frac{1}{4}$ inches in length; furthermore he states that his bird came from Ulietea, i.e. Raiatea, an island in the Society group some way from Tahiti. Murphy & Mathews do not refer to any race from there and it is possible that Forster's description concerns a bird which has since become extinct; it was apparently meant to refer to the species painted by Georg Forster since the description begins with a note on the drawing. Sharpe thought that it represented *Tatara longirostris* (1883 : 525) i.e. *C. caffra longirostris* (Gm.), 1789.

M.E. 8; A.M. 28; Webber, f. 139; Ellis, f. 76.

56. *Eudynamis taitensis* (Sparrm.), 1787. Long-tailed Cuckoo or Koekoea.

Unsigned painting of specimen from Tahiti collected in 1773 (1844 : 161). "*Cuculus fasciatus* Arevā-revā. Taheitee-Tayarabboo." (D.) "Ge. Forster"—almost obliterated. (Al.) "—*tahitius* S.N.XIII : 412. Lath. p. 514. n.4."

J. R. Forster gives both Tahiti and Huahine as localities for this species; the variety he mentions was probably a young bird. Latham saw a specimen in the Leverian Museum. See Mayr (1944) for a discussion of the genus.

*57. *Chalcites lucidus* (Gm.), 1788. Shining Cuckoo or Pipiwharauoa.

Unsigned painting of a bird from Queen Charlotte's Sound, N.Z. "*Cuculus nitens* Poopooarouro. New Zealand, Nov. 5 1773. [Queen Charlotte's Sound." (D.) "Ge. Forster." (Al.) "—*lucidus* S.N.XIII : 421. Latham p. 528-24."

J. R. Forster apparently confused this with the Didric Cuckoo of South Africa, *Lampromorpha caprius* (Bodd.) and in his account gives both Queen Charlotte's Sound and the Cape of Good Hope as localities (1844 : 151). This drawing is the type of *C. lucidus* since Latham's description (1782 : 528, pl. 23) was based on it.

M.E. 36; A.M. 5.

58. *Halcyon venerata venerata* (Gm.), 1788. Latham's Respected Kingfisher.

Unsigned painting of a bird from Tahiti. "Erodro at Taheitee." (D.) "Ge. Forster." (Al.) "*Alcedo collaris*."

J. R. Forster states that this bird was found in Tahiti, Huahine, Ulietea (Raiatea) and Otaha; it is, in fact, confined to Tahiti (Mayr, 1949). The two varieties

he mentions from Tonga and Sta. Christina (Tahuata in the Marquesas) were considered by Sharpe (1892 : 262) to belong to *H. sacer*, which, according to Peters (1945), is *H. chloris sacra* (Gm.) 1788—restricted to Tonga by Wetmore. This is true for Var. I; Forster's description of Var. II, however, clearly applies to *H. godeffroyi* Finsch, 1877 from the Marquesas.

Webber, f. 135.

59. *Halcyon sancta vagans* (Lesson), 1828. Sacred Kingfisher or Kotare.

Unsigned painting. "*Alcedo cyanea*. ghotarre. N.Z. Dusky Bay. April 4th. 1773." (D.) "Ge. Forster." (Al.) "*sacra* ♂ S.N.XIII : 453. n. 30. Lath. p. 622. n. 12.c."

Although this bird was discovered in 1773 (1844 : 76, 156) it was not until after the French expedition round the world in 1822–25, that Lesson, one of the zoologists on board *La Coquille*, described it.

60. *Halcyon leucocephala acteon* (Lesson), 1830. Grey-headed Kingfisher.

Signed painting of one of these kingfishers against an extensive background, with a couple of brightly painted crabs in the foreground. Georg Forster's tiny monogram is painted on a piece of split wood, right centre. "St. Jago. *Alcedo canrophaga*." (D.) "Forster." (Al.) "*Alcedo senegalensis* S.N.XIII : 456."

J. R. Forster's description of this species (1844 : 4) from the Cape Verde Islands is dated 13th August, 1772.

M.E. 18; A.M. 10.

61. *Prothemadera novaeseelandiae* (Gm.), 1788. Tui or Parson-bird.

Unsigned painting of a bird taken in 1773 (1844 : 78). "*Certhia cinnamata*. Q. Charlotte's Sound." (D.) "published by Dr. Forster in Cook's voyage vol. 1, tab. 52." (Al.) "*Merops nova Seelandia* S.N.XIII : 464. Lath. p. 682. n. 17."

The earliest illustration of this bird was published by Peter Brown in 1776 who worked from "a stuffed specimen in tolerable preservation, in the possession of Marmaduke Tunstall Esq." Tunstall's collection eventually went to Newcastle-on-Tyne but the specimen no longer survives. Latham's specimen of the "New Zealand Creeper" was in the Leverian Museum (1782 : 682). There is a reference in Gadow (1884 : 257) to an illustration of this bird which appeared in Levaillant's *Oiseaux d'Afrique* in 1800 (pl. 92), the specimen having been sent from London to Gigot-D'Orcy, a French Inspector of Mines with interests in natural history; he was a correspondent of Banks. Tuis were taken on board the *Resolution* and lived for many weeks on a diet of sugar and water.

M.E. 17; P.R. 23, 63; A.M. 20; Ellis, f. 25.

62. *Anthornis melanura* (Sparrm.), 1786. New Zealand Bellbird or Korimako.

Unsigned painting. "*Certhia olivacea* Q. Charlotte's Sound. he-ghòbàrra." (Al.) "*sannio* S.N.XIII : 471. Lath. p. 735. n. 39."

It seems possible that this species and the last were described by J. R. Forster from specimens taken in Dusky Sound and not from those painted by his son as the dates of capture given by him are, respectively, 3rd April and 30th March,

1773 (1844: 78-79). The *Resolution* "was in Dusky Sound from 26th March to 11th May, and in Queen Charlotte's Sound from 18th May to 7th June."

M.E. 33; A.M. 22.

63. *Myzomela cardinalis cardinalis* (Gm.), 1788. Cardinal Honey-eater.

Unsigned painting, with a pencil sketch of the head and tongue. "*Certhia cardinalis* Tanna. 16th August 1774." (D.) "Ge. Forster." (Al.) "S.N.XIII: 472. n.38."

J. R. Forster tells us that the natives of the New Hebridean island where he took this bird, called it Kuyaméta (1844: 262). There was a specimen in the Leverian Museum.

64. *Foulehaio carunculata* (Gm.), 1788. Wattled Honey-eater.

Unsigned painting of a species taken at the Friendly Isles in 1773 (1844: 165). "*Certhia carunculata* Tonga Tabboo Amsterdam Isle." (D.) "Ge. Forster." (Al.) "S.N.XIII: 472. n. 39."

Georg Forster referred to this species in an article in the *Götting. Mag. Wiss. Lit.* (1780: 349) but did not publish its scientific name; his father reported it from both Eua and Tongatabu, and Latham mentioned specimens in the Leverian Museum (1782: 732). It was still abundant in 1925 when it was collected by the Whitney Expedition from 37 islands in the Tonga group (Mayr, 1932: 7); it also occurs in Samoa and some of the Fijian islands. It is one of the sweetest singers amongst the Polynesian birds.

- *65. *Chloephaga picta picta* (Gm.), 1788. Upland Goose.

Unsigned painting of a bird taken on New Year's Island off Statenland. "*Anas picta* [Stat]enland. Jany. 2d. 1775." (D.) "Ge. Forster." (Al.) "S.N.XIII: 504. Lath. 443.n.9."

Gmelin based his description on Latham's account of the Painted Goose (1785: 443) which was founded on a drawing in Banks's collection so that this is the type.

66. *Chloephaga hybrida hybrida* (Molina), 1782. Kelp Goose.

Unsigned painting of an adult female, with the white male swimming in the distance, collected at New Year's Island, off Statenland (1844: 336-338). "*Anas Ganta*. Terra del Fuego. 1774", a further date is illegible. (D.) "Ge. Forster." (Al.) "*Anas antarctica* S.N.XIII: 505. n. 57. Lath. 442.n.7 . . . comes nearest to *A. magellanica* S.N.XIII 56."

A female of the species was in the Leverian Museum.

A.M. 34.

- *67. *Casarca variegata* (Gm.), 1789. Paradise Duck or Putangitangi.

Unsigned painting of the female. "*Anas Cheneros*. Pooa duggie duggie. No. 24. Dusky Bay. N.Z. April 7th. 1773." (D.) "Ge. Forster." (Al.) "*—variegata* S.N.XIII: 505. n. 58. Lath. 441. n. 6."

Latham used this drawing as the basis of his description (1785) and it therefore is the type. J. R. Forster describes both the male and the female (1844: 92).

68. *Tachyeres pteneres* (Forster), 1844. Magellanic Flightless Steamer Duck.

Unsigned painting. "—nd. Statenland. January 2d. 1775. *Anas pteneres* [*brachyptera* has been crossed out]. The English Seamen call this Bird Racehorse." (Al.) "—*cinerea* S.N.XIII : 506. n.60. Lath. 439.n.16."

Forster's account is a detailed one (1844 : 338), Murphy (1936 : 957) considers that his remarks on the plumage, size and habits refer to the flightless species *T. pteneres*, but that his notes on wing span and body length may apply to the smaller Steamer Ducks which have not lost the power of flight.

69. *Casarca cana* (Gm.), 1789. African Shelduck, Berg-eendt.

Unsigned pencil sketch with the colours written over the drawing. J. R. Forster has dated his notes on this bird November, 1772 (1844 : 44) when the *Resolution* called at Cape-town for provisions, and Sparrman joined the Forsters as an additional naturalist. He gives Schumacher as the artist of this and the following sketch, not that they reflect much credit on him. It is possible that this pencil sketch represents the female since there is a line of demarcation on the head which has no colour written on the area it encloses and was possibly intended to be left white. "*Anas montana*. Cape." (Al.) "Probably *Anas cana* S.N.XIII : 510. cf. Lath. p. 458 n. 19. Bergenten."

The remains of Dryander's ascription to Forster can just be made out in the bottom left-hand corner. Latham confused the sexes ; there was at least one specimen in the Leverian Museum (1785 : 458).

70. *Casarca cana*. See f. 69.

An unfinished wash drawing, apparently intended to represent the male African Shelduck since the head is grey and no white is shown on it.

The MS. notes are the same as those on the last plate save that the vernacular name is spelt Bergendt.

- *71. *Anas georgica* Gm., 1789. South Georgia Teal.

Unsigned painting of a specimen collected at South Georgia (1844 : 342) when this island was discovered on the homeward voyage in 1775. "*Anas xanthorhyncha* Jan. 17. 1775. South Georgia." (D.) "Ge. Forster." (Al.) "—*georgica* S.N.XIII : 516. Lath. 478. n. 34."

Latham's account (1785) of this species was based on this drawing which is therefore the type.

72. *Anas undulata undulata* Dubois, 1837. Yellow-billed Duck.

Unfinished wash drawing of a bird seen at the Cape of Good Hope on the outward journey, November, 1772. "*Anas xanthorhyncha. Capensis*. Cape of Good Hope." (D.) "Ge. Forster." (Al.) "—*georgica* S.N.XIII : 516. Lath. 478."

J. R. Forster considered that this was a variety of the South Georgia Teal (1844 : 45, 342).

73. *Anas erythrorhyncha* Gm., 1789. Red-bill Teal.

Unsigned painting of a duck which, like the last, was collected at the Cape of Good Hope on the outward journey (1844 : 45). "*Anas pyrrhorhyncha* Cape of Good Hope." (D.) "Ge. Forster." (Al.) "—*erythrorhyncha* S.N.XIII : 517. Lath. 507. n. 52."

Latham mentions neither specimen nor drawing in his account of the species.

74. *Hymenolaimus malacorhynchos* (Gm.), 1789. New Zealand Blue Duck or Whio.

Unsigned painting. "*Anas malacorhyncha*. Dusky Bay. April 3d. 1773. he-weeyo." (D.) "Ge. Forster." (Al.) "—os S.N.XIII : 526. Lath. 522. n. 67."

There is the beginning of a pencil sketch, perhaps of Dusky Sound, on the back. Latham apparently described this bird (1785 : 522) from the accounts of the voyage published by Cook and Forster. Forster's description is on p. 94 of the *Descriptiones Animalium*.

- *75. *Anas capensis* Gm., 1789. Cape Wigeon.

Finished painting, signed "G.F.1773", of this South African duck collected on the outward journey (1844 : 46). "*Anas assimilis*. Cape Good hope." (Al.) "—S.N.XIII : 527 Lath. 519. n. 64. *capensis* Smith."

This is the type since Latham based his account (1785) of the bird on it. For a note on Forster's date see f. 112.

76. *Dendrocygna viduata* (Linn.), 1766. White-faced Duck.

Unfinished and unsigned painting of a bird which does not appear to have been recorded by J. R. Forster. "*Anas viduata* Linn. Cape of Good Hope." (Al.) "S.N.XIII : 536."

Some writing on the bottom left-hand corner has been worn away.

- *77. *Anas superciliosa superciliosa* Gm., 1789. New Zealand Grey Duck, or Parera.

Unsigned painting of a specimen taken in 1773 (1844 : 93). "*Anas leucophrys* he-Tārrera. drawn in Dusky Bay and to be found in Charlotte's Sound." (Al.) "—*superciliosa* S.N.XIII : 537. Lath. 497.n.45."

The bird is also outlined on the back of the sheet. This painting was the basis of Latham's account (1785) and is therefore the type of the species.

78. *Anas specularioides specularioides* King, 1828. Crested Duck.

Unsigned painting. "*Anas lophyra* [*crisatella* crossed out]. Staten Land. Jany. 2d. 1775." (D.) "Ge. Forster." (Al.) "—*crisata* S.N.XIII : 540. Lath. 543. n.81."

See J. R. Forster (1844 : 340).

- *79. *Nyroca novaeseelandiae* (Gm.), 1789. New Zealand Scaup, Black Teal or Papango.

Unsigned painting of the male, taken in 1773 (1844 : 95). "*Anas atricilla* he-pātek Dusky Bay." (D.) "Ge. Forster." (Al.) "—*nova Selandia* S.N.XIII : 541. Lath. 543. n. 80.

Latham's account (1785) of the species was based on this painting which is therefore the type.

80. *Eudyptes chrysolophus schlegeli* Finsch, 1876. Royal Penguin.

Unsigned and unfinished pencil sketch of a penguin collected by one of Captain Furneaux's sailors in Adventure Bay, Tasmania, March, 1772 (J. R. Forster, 1781). "*Aptenodytes chrysocoma*—van Diemens Land." (D.) "Ge. Forster *Aptenodytes chrysocome*. J. R. Forster in *Commentat. Gotting.* 3. p. 135." (Al.) S.N.XIII : 555. n.1."

This sketch has been much discussed and I am indebted to Dr. R. A. Falla for kindly examining it and giving the above identification. He points out that it might possibly represent the Macaroni Penguin *Eudyptes chrysolophus chrysolophus*

Brandt, 1827 but that there is nothing to suggest that the bird's throat was black. Moreover the Macaroni Penguin has not been recorded from Tasmania whereas the Royal has been noted on several occasions (Cashion, 1953).

J. R. Forster tells us that the bird lived for some days after being captured and that he examined and described the skin which, when stuffed, was drawn by his son. He commissioned J. F. Miller to make a painting of a skin from the Falkland Islands, thinking that it belonged to the same species as the bird collected in Tasmania ; from this painting of Miller's an engraving was made and published in the *Comm. Gott.* (1781) with the name of *Aptenodytes chrysocoma*. The accompanying description included characters of both the Royal and Macaroni Penguins as well as of the Rock-hopper *Eudyptes crestatus crestatus* Miller, 1784. Miller's painting was published in 1784 with references to Forster's publication and localities. Mathews & Iredale (1921a) reviewed the nomenclature and decided that *chrysocoma* Forster was too much of a mixture to be safely used. They thought that Forster's drawing represented the Thick-billed Penguin *Eudyptes pachyrhynchus* G. R. Gray but the crest and bill are clearly not characteristic of this species. The names of the three species confused by J. R. Forster are therefore those given above.

81. *Aptenodytes patagonicus* J. F. Miller, 1778. King Penguin.

Unsigned painting of a male taken at South Georgia. "*Aptenodytes patachonica* [*hyperpolius* crossed out] Jany. 17th. 1775. 36 inches high." (D.) "Ge. Forster *Aptenodytes patachonica* J. R. Forster in *Comm. Cotting.* 3. p.137. published by Mr. Pennant in his genera of birds tab. 14." (Al.) "S.N.XIII: 556.n.2."

Both Cook and J. R. Forster commented on the large size of the penguins taken at South Georgia and their remarks have sometimes been interpreted as evidence that Emperor Penguins were also found ; Cook, however, who says that they were the largest he had ever seen, gives their weight as 29 to 38 lb. and Forster as about 40 lb. Since the recorded weights of adult Emperors range from 57 to 94 lb. it seems clear that none of the latter species was observed.

Miller's plate of *A. patagonicus* was antedated by one published in 1776 by Sonnerat in his *Voyage à la nouvelle Guinée*. King Penguins have never been recorded north of New Zealand and Tasmania, and it is only stragglers that occasionally occur in these two countries. Sonnerat had, in fact, published a drawing by Jossigny, draughtsman to Commerson, the gifted naturalist who accompanied Bougainville on his voyage round the world, 1767-69. Commerson had collected extensively in and about the Straits of Magellan and appears to have found King Penguins there ; according to Murphy they were once resident in that region (1936 : 344). Commerson did not return to France with Bougainville but remained in Mauritius where he died in 1773. Some of the drawings of South American birds that he had left were used by his recently acquired assistant, Sonnerat, to illustrate his own book on New Guinea, a country he had never actually visited ; this proceeding led to some confusion. Sonnerat gained some credit for having assisted his uncle Poivre, Intendant of Mauritius, to break the Dutch spice monopoly, and his lack of scruple over Commerson's material seems to have been overlooked by most of his contemporaries although Cuvier was aware of it (Lysaght, 1952).

Miller's plate is very close to this one of Forster's but since Latham refers to specimens in both the Leverian and the British Museums (1785 : 563) we cannot be sure that Miller based his description on this drawing and not on a specimen.

P.R. 9 ; Ellis, f. 46 ; Webber, f. 124.

82. *Pygoscelis antarctica* (Forster), 1781. Bearded Penguin.

Unsigned painting of a penguin against a background of sea and ice, taken in December 1772 or January 1773 (1844 : 56-58). "*Aptenodytes antarctica* Indian Ocean South of Kerguelens Land. about 2/3 natural size." (D.) "Ge. Forster. *Aptenodytes antarctica* J. R. Forster in *Commentat. Gotting.* 3. p. 144. tab. 4 this figure." (Al.) "S.N.XIII : 557. n. 4."

J. R. Forster noted that this species was usually gregarious and that it was commonly to be found on ice floes far from land. See also f. 101.

A.M. 50.

83. *Spheniscus magellanicus* (Forster), 1781. Magellan Penguin.

Unsigned painting. "*Aptenodytes magellanica* very near natural size Staten Land." (D.) "*Aptenodytes magellanica* Forster in *Comm. Gott.* 3. p. 143. tab. 5. this figure. Published by J. F. Miller tab. 34." (Al.) "S.N.XIII : 557 n.5."

Many thousands of these penguins were reported by J. R. Forster at New Year's Island, off Statenland, (1844 : 351-352) in January 1775, when this one was taken.

84. *Eudyptula minor* (Forster), 1781. Little Blue Penguin or Korora.

Unsigned painting of a bird belonging to a species discovered at Dusky Sound, New Zealand, 31st March, 1773 (1844 : 101). "*Aptenodytes minor* New Zealand." (D.) "Ge. Forster. *Aptenodytes minor* J. R. Forster in *Commentat. Gotting.* 3. p. 147." (Al.) "S.N.XIII : 558. n. 9."

The whole upper surface here is brownish-black ; the bird depicted is smaller than that in the next painting, which is slaty-blue above.

P.R. 8.

85. *Eudyptula minor* (Forster), 1781.

Unsigned painting ; the MS. notes correspond to those on f. 84 but the Maori name of the bird, Korōra, has been added.

This may be the Cook St. subspecies.

86. *Halobaena caerulea* (Gm.), 1789. Blue Petrel.

An unsigned, fully-coloured painting of one of these petrels in flight, probably the specimen taken on 28th Dec., 1772 as J. R. Forster gave this date and noted a painting by his son when he described the species (1844 : 59). "*Procellaria similis*. Southern Ocean" ; there is also an indecipherable note which appears to be in Georg Forster's hand. Dryander's ascription of the drawing to him has been almost trimmed away.

J. R. Forster pointed out (*loc. cit.*) the superficial resemblance between this species and *Pachyptila vittata* (next folio) but stated that they were clearly different ; the drawing shows the characteristic white tips of the rectrices. According to Latham there was a specimen of the Blue Petrel in the British Museum.

A.M. 40.

87. *Pachyptila vittata* (Forster), 1777. Broad-billed Whale Bird.

This is an unsigned painting of one of these birds with outstretched wings, from above; there is also a side view of the head with the beak wide open to show the tongue and the laminae of the upper mandible. "*Procellaria vittata*. Southern Ocean." (D.) "Ge. Forster." (Al.) "S.N.XIII : 560. n. 10."

J. R. Forster gives a clear account of the bill, describing the laminated structure of the upper mandible and the pouch between the rami of the lower one (1844 : 22). His son's painting was reproduced on a small scale, without the drawing of the head, in the *Penny Cyclopaedia* for 1840 (18 : 47) where there is a long and interesting article on petrels. Latham refers to a specimen in the Leverian Museum.

A.M. 41.

88. *Pelecanoides urinatrix* (Gm.), 1789. Common Diving Petrel or Kuaka.

Unsigned painting of a bird taken 7th November, 1773 (1844 : 150), with an additional painting of the head showing dilatation of the pouch beneath the lower mandible. "*Procellaria tridactyla*. Teetee. Eyes blackish blue. Queen Charlotte's Sound. Nov. 24th." (D.) "Ge. Forster." (Al.) "*—urinatrix* S.N.XIII : 560. n. 11."

The Maoris use the name "Titi" for both the Sooty Shearwater and the Cook's petrel but apparently not for this bird. An engraving from this painting was reproduced in the *Penny Cyclopaedia* for 1840 (see f. 87). The pouch below the bill was described both by Forster (*loc. cit.*) and by Latham, who, however, makes no reference to a specimen or to this drawing (1785 : 413).

M.E. 23.

89. *Pagodroma nivea* (Forster), 1777. Snow Petrel.

Fully-coloured, signed painting of one of these birds swimming on a blue-green sea with dark clouds in the background. "G.F.30th Decemb. 1772. *Procellaria nivea* Southern Ice Ocean", the last three words are not quite clear owing to trimming of the paper. (D.) "Ge. Forster." (Al.) "S.N.XIII : 562. n. 15."

J. R. Forster says that these petrels occurred in the Antarctic Ocean, south of Lat. 52°, especially in the vicinity of ice (1844 : 58). Latham speaks of specimens in both the British and the Leverian Museums (1785 : 408).

A.M. 39, 53.

90. *Pagodroma nivea* (Forster), 1777. See last folio.

Unsigned pencil sketch of the bird in flight, with one of the ships and some icebergs in the distance. "*Procell. nivea*." (D.) "Ge. Forster." (Al.) "S.N.XIII : 562. n. 15."

91. *Fulmarus glacialis* (Smith), 1840. Silver-grey Petrel.

Unsigned completed painting of one of these birds floating on a brilliant sea, painted on 14th Oct., 1772, when the *Resolution* was west of the Cape of Good Hope (1844 : 25). "*Procellaria glacialis*. South Atlantic Ocean. S.L.36°." (D.) "Ge. Forster." (Al.) "S.N.XIII : 562. n. 13 (after 16)."

The colouring of the bill in this painting makes it clear that this was not the Northern Fulmar with which it was confused at that time.

A.M. 42.

92. *Adamastor cinereus* (Gm.), 1789. Grey Petrel, Pediunker or Great Grey Shearwater ; Pediunker is the vernacular name at Tristan da Cunha.

Unsigned painting, not quite finished. It is just possible to decipher " . . . *laria inexpectata*."

J. R. Forster says that the bird was captured on 10th January, 1774 (1844 : 208-209) in Lat. 48° S., about midway between New Zealand and Cape Horn, and he remarks on the number of cephalopod beaks that he found in its stomach ; he called the species *Procellaria haesitata* but before his work appeared in print that name had been published for another bird. Georg Forster seems to have confused this painting with No. 97. Latham (1785 : 405) gives notes on a specimen he saw in the British Museum but seems to have taken his observations on the colours of the soft parts from this drawing or from the Forsters' MSS.

A Pediunker was taken on the first voyage (Sol. MS. Z4 : 71) on 2nd October, 1769, Lat. 37° 10' S., and Long. 171° 5' W., when the *Endeavour* was east of New Zealand. We do not agree with Matthew's suggestion that Ellis's f. 41 represents this species (1912-13 : 124).

- 93a. *Macronectes giganteus* (Gm.), 1789. Nellie, Bone-breaker or Giant Petrel.

Unsigned pencil sketch of the head and neck ; probably of the bird taken on 28th December, 1774 (1844 : 343) as J. R. Forster refers to this sketch. There was a specimen in the British Museum.

Parkinson, f. 17 ; Ellis, ff. 39, 42.

- 93b. *Pterodroma macroptera macroptera* (Smith), 1840. Great-winged Petrel.

A rather roughly-executed unsigned painting in sepia, probably of the bird taken on 12th October, 1772 (1844 : 23) near Tristan da Cunha, one of the breeding grounds of this species. "*Procellaria fuliginosa*. Atlantic Ocean. S.Lat. 35." (Al.) "*—grisea* S.N.XIII : 564. n. 20."

94. *Puffinus griseus* (Gm.), 1789. Sooty Shearwater or New Zealand Mutton Bird.

A pale wash drawing, unsigned and unfinished, of a specimen taken in a high southern latitude (1844 : 205) in 1773. "*Procell fuliginosa* ? South Seas April [?] 50° S." (Al.) "*—grisea* S.N.XIII : 564. n. 20."

Forster's note is very faint and an indistinct word appears to be April though they were not so far south in that month in 1773 or in the other years. Mathews discusses this drawing in some detail (1912-13 : 94) but is mistaken in giving 48° S. as the locality ; J. R. Forster gives that latitude only as the northern limit of the range of the species. Latham refers to a specimen in the Leverian Museum (1785 : 399).

Solander MS. Z4 : III : Parkinson, f. 23.

95. *Thalassoica antarctica* (Gm.), 1789. Antarctic Petrel.

Unsigned, fully finished painting of the bird in flight against drifting cloud. The edges of the paper are worn and have been cut in one place. "*Procellaria antarctica*." (Al.) "S.N.XIII : 565. n. 23."

J. R. Forster gave a brief description of this petrel from a sight record in 1772 but it was not until 1773 that he was able to get two specimens and draw up a detailed

description (1844 : 60, 202). Latham does not mention the source of his information about this species.

A.M. 38.

96. *Daption capensis* (Linn.), 1758. Cape Pigeon or Pintado Bird.

Unsigned painting, in sepia wash, of a bird, swimming high in the water, that was taken with a fishing line on 12th October, 1772 (1844 : 20). "*Procell. capensis*." (D.) "Ge. Forster." (Al.) "S.N.XIII : 565. n.5 (after 23)".

There were specimens in both the Leverian and British Museums.

A.M. 37, 37A.

97. *Pterodroma inexpectata* (Forster), 1844. Mottled Petrel.

Unsigned sepia painting of a bird in flight, taken in the Antarctic Ocean, 1773 (1844 : 204). "*Procellaria haesitata*." (D.) "Ge. Forster" (almost obliterated). (Al.) "*Oe. gularis* see *Monograph of Petrels*. p. 236. F. D. G."

J. R. Forster says (*loc. cit.*) that this species was found with the Antarctic Petrel. Godman (1909 : 236) suggested that *haesitata* was written on this painting by Solander but the writing is not like the annotations in Solander's copy of the 12th edition of the *Systema Naturae*, and seems more like that of Georg Forster. In view of the fact that Georg Forster wrote *inexpectata* on pl. 92, which represents a species referred to as *haesitata* by his father, it seems to be a case of simple human error, and one easily understood in the circumstances under which they were working.

Solander described *P. inexpectata* (MS. Z4 : 91-92) under the name of *lugens*.

Parkinson, ff. 21, 22.

98. *Pterodroma lessonii* (Garnot), 1926. White-headed Petrel.

Unsigned painting of the bird in flight. "*Procellaria leucocephala*." (Al.) "*Procellaria leucocephala* (Forst.)."

This species was first described by the French scientist Garnot amongst others he saw at the Falkland Islands when he was on *La Coquille* at anchor in French Bay, East Falkland Island, November-December 1822 (1826 : 54). On p. 55 he says that it occurs in the vicinity of Cape Horn and in the Pacific, 52° N. (error for S.) and 85° W. The first locality he mentions, however, is clearly that of the type, and this was confirmed many years later by Bennet (1931 : 12) who, in August 1925, saw three specimens of this unmistakable petrel off the East Falklands. J. R. Forster (1844 : 206) says that it occurred right across the Pacific, from near New Holland to Cape Horn, but seldom north of 40° S. ; he refers to it as the New Holland Shearwater. According to Murphy & Pennoyer (1952) this bird is closely related to *Pterodroma incerta* (Schl.).

99. *Diomedea exulans* Linn., 1758. Wandering Albatross.

Finished, unsigned painting of the bird at rest on the water : this may have been one of the nine Wanderers caught with hook and line on the 24th October, 1772 (Georg Forster's diary, p. 42), a date agreeing with his father's description (1844 : 27). "*Diomedea exulans*. Atlantic Ocean." (D.) "Ge. Forster." (Al.) "S.N.XIII : 566."

J. R. Forster noted that the wing span varied from only 7 feet in the smallest of these birds to over 10 in the largest ; it seems therefore that he also had specimens

of the smaller Tristan race, *D. exulans dabbenena* Mathews, 1929, a form which has been separated comparatively recently. Both the British and the Leverian Museums possessed specimens of Wandering Albatrosses.

Parkinson, f. 25 ; A.M. 43 ; Ellis, f. 44 ; Solander MS. Z4 : 5-7.

100. *Diomedea chlororhynchos* Gm., 1789. Yellow-nosed Albatross.

An almost completed, unsigned painting "*Diomedea chrysostoma*. Irides brown. Under eyelid white. Head dark pearly grey, gradually and very softly vanishing into a fine clear white on the neck. A more dark Spot over the Eye. The middle of the Back black gradually turning into pearl grey and then into white towards the Neck- But abruptly bounded by white on the Uropygium end. Feet pale greyish white." Over the outline of the foot is written,—“ This Leg is something too large.” (Al.) “—*chlororhynchos* S.N.XIII : 568. n. 3. *D. chlororhyncha*.”

This is a representation of a bird which was not quite mature. It is certainly very similar to the sketch of *D. chrysostoma* on the next folio and differs mainly in the absence of the pale line along the ramal border of the lower mandible. Also there is no white beneath the eye though the MS. notes suggest that this is an accidental omission ; this white patch exists in both species but is not always obvious. *Chlororhynchos* and *chrysostoma* are difficult to separate when immature except by the shape of the posterior border of the culmen (Mathews, 1912 : 274) ; mature birds may also be distinguished also by the presence in *chrysostoma* of a yellow or horn-coloured ramal stripe along the lower mandible, a character lacking in *chlororhynchos* (Mathews & Iredale, 1921 : f. 2) which however possesses a vertical orange stripe at the base of the lower mandible, a character lacking in *chrysostoma*.

D. chlororhynchos has a more northerly range than *D. chrysostoma*, and Murphy says that it has not been found in the eastern Pacific or off the west coast of South America (1936 : 520-521) and that, primarily, it is a bird of the milder Atlantic and Indian Ocean regions. Tristan da Cunha is one of its breeding grounds and it is probable that the bird collected in early October 1772, between Tristan da Cunha and the Cape of Good Hope (1844 : 24-25) was in fact a member of this species, although Forster's detailed description published under that date refers unmistakably to *D. chrysostoma*, as may be seen in the notes on the following painting. Since Forster noted that *chrysostoma* occurred in the far south, circa Lat. 71° S., and in South Georgia (*op. cit.* : 210, 313), as well as in the vicinity of the Cape of Good Hope, it seems clear that he collected both species but did not realize that they differed—hence the placing of the description of *chrysostoma* under a locality and a date that in all probability pertained to *chlororhynchos*. No dates or places were noted on the drawings in question.

101. *Diomedea chrysostoma* Forster, 1785. Grey-headed Albatross.

Unsigned pencil sketch ; on the back is a pencil sketch of two Bearded Penguins, *Pygoscelis antarctica* (see f. 82). (D.) “Ge. Forster.” (Al.) “*Diomedea chrysostoma*—*chlororhynchos* S.N.XIII : 564. n.3.”

J. R. Forster described and figured this species in 1785 ; a further account by him was published in 1844 : 24-25. For some reason the second description has been assumed to refer to *D. chlororhynchos* (Salvin, 1896 : 452, etc.) but the description

of the bill, quoted below, is unmistakable—"Rostrum nigrum, supra linea flava : mandibula inferior a plumis divisa margine elevato, membranaceo angusto aureo, decurrente postice per fauces et ultra sub oculis, infra desinente in lineam flavam ante apicem terminatam." Murphy has already pointed out that Peters (1931) is incorrect in the type locality he quotes and has suggested that it should be changed to South Georgia where Forster found this albatross in January 1775.

Parkinson, f. 27 ; Solander MS. Z4 : 11.

102. *Phoebetria palpebrata* (Forst.), 1785. Light-mantled Sooty Albatross.

Signed, fully finished painting of an albatross taken in the South Pacific. "G. Forster delin 1773. ad vivum in mari Antartici. *Diomedea palpebrata*. die 20 Jan. Anni. 1773." (D.) "Ge. Forster." (Al.) "South Sea. *Diomedea fuliginosa* S.N.XIII : 568 : n. 4 *Ph. cornicoides* F.D.G."

J. R. Forster's first description of this species was published in Paris in 1785, and the second in 1844 : 55-56 ; he gives its range as the Antarctic Ocean from Lat. 47° to 71·10° S.

A.M. 49 ; Parkinson, f. 26.

103. *Phalacrocorax punctatus* (Sparrm.), 1786. Spotted Shag or Parekareka.

Unsigned, finished painting of a Spotted Shag taken on 27th May, 1773 (1844 : 104). "*Pelecanus punctatus* Charlotte's Sound, N.Z. Pa-degga-degga." (D.) "Ge. Forster." (Al.) "Charlotte's Sound N.Z. S.N.XIII : 574. n. 20. —*naevius* ib. 575. n. 24."

M.E. 22 ; P.R. 14 ; A.M. 47.

104. *Phalacrocorax carunculatus* (Gm.), 1789. Rough-faced Shag.

Unsigned painting of a bird taken on 20th May, 1773 (1844 : 102). "*Pelecanus carunculatus*. Queen Charlotte's Sound." (D.) "Ge. Forster." (Al.) "S.N.XIII : 576. n. 25."

J. R. Forster apparently confused this species with *P. albiventer* (Lesson) since he states that he saw it in Terra del Fuego and Statenland as well as in New Zealand (1844 : 102). Specimens of both the Rough-faced and the Spotted Shag were in the Leverian Museum (Latham, 1785 : 602-603).

105. *Phalacrocorax magellanicus* (Gm.), 1789. Rock or Megallanic Shag.

Unsigned, almost completed painting. "Tierra del Fuego. ♀. 28th Dec. 1774. *Pelecanus magellanicus*." (Al.) "S.N.XIII : 576. n. 26."

J. R. Forster described this shag in detail (1844 : 313) ; he also refers to having seen it at South Georgia (*op. cit.* : 313) but perhaps confused it with *P. atriceps*, a Blue-eyed Shag which occurs there as well as in Terra del Fuego. Latham mentions that a specimen of the Magellanic Shag was in the Leverian Museum (1785 : 604).

M.E. 21 ; A.M. 48.

106. *Phalacrocorax varius varius* (Gm.), 1789. Pied Shag or Karuhiruhi.

Finished, unsigned painting of one of these shags on the water ; an egg is shown too. "*Pelecanus pica*. Queen Charlotte's Sound." (D.) "Ge. Forster." (Al.) "—*varius* S.N.XIII : 576. n. 27. Lath. 605. n. 21. similar."

Latham (1785 : *loc. cit.*) discusses a specimen in the Leverian Museum and com-

pares it with this drawing. J. R. Forster mentions that a specimen was taken in Dusky Sound (1844 : 104) and gives notes on breeding times.

107. *Sula dactylatra personata* Gould, 1846. Australian Masked Gannet.

Unsigned painting. "*Pelecanus piscator* Linn. Norfolk Isles. oct. 9th. 1774." (D.) "Forster."

Since the Forsters believed that this species had already been described by Linnaeus they apparently did not trouble to make any notes about it save for a comment on the nests (1844 : 279), and many years passed before it received a scientific name. The mask of the bird in Forster's plate is a dark yellowish grey. Ellis, f. 47.

108. *Sula leucogaster plotus* Forster, 1844. Australian Brown Gannet or Booby.

A painting, unsigned and unfinished. "*Pelecanus Plotus* [crossed out] *Fiber* Linn. N. Caledonia. ♀. 16th Sept. 1774." (D.) "G. Forster."

This species had been taken on the first voyage when the *Endeavour* was off the Australian coast (Solander MS. Z4 : 23) but was then confused with *Sula sula* Linn., 1766 : Forster compares the size of the two species (1844 : 278), referring to *S. sula* as *Pelecanus fiber* Linn., a synonym based on an immature bird.

P.R. 16 ; A.M. 46.

109. *Larus ?novaehollandiae scopulinus* Forster, 1844. Silver Gull or Tarapunga.

An unsigned, unfinished painting of a gull in flight. "New Zealand. he talla." (J. R. F.) "*Larus scopulinus*."

When J. R. Forster described this bird (1844 : 106) he stated that it was painted by Hodges, an attribution that there seems no reason to doubt. It was first taken in Dusky Sound, 13th April, 1773 ; the painting shows a young bird, in first juvenal plumage. Messrs. G. Turbott and J. M. Cunningham have seen this drawing and have pointed out that it shows some resemblance to *L. bulleri* Hutton ; it is possible that Forster had specimens of both species.

110. *Sterna fuscata serrata* Wagler, 1830. Sooty or Wideawake Tern.

Unsigned, finished painting. "N. Caledonia. ♀. Sept. 16th. 1774." (Al.) "*Sterna serrata*."

Wagler's description of this bird is almost identical with Forster's (1844 : 276) and he acknowledges Forster as the source of his information.

See also P.R. 21 ; A.M. 44 ; Ellis, f. 55.

111. *Nycticorax caledonicus* (Gm.), 1789. New Caledonian Night Heron.

Unfinished, unsigned painting. "*Ardea ferruginea* 11th Sept. 1774. N. Caledonia." (D.) "Ge. Forster." (Al.) "*Ardea caledonica* S.N.XIII : 626."

J. R. Forster states (1844 : 274) that this bird lived in an intensely foetid swamp. Latham says that Forster described it to him (1785 : 55).

112. *Ardea* sp.

A charming, signed painting of a heron. "G. F. 1773." (D.) "Ge. Forster." (Al.) "*Ardea cocoi* S.N.XIII : 629. Prom. bon spei in vivario."

This plate shows a young blue-grey heron, lacking a crest, with dark streaks down the neck and breast, a horn-coloured bill, blue-grey legs, and feet with black claws. One might assume that the locality is doubtful since Georg Forster dated the plate 1773 and the *Resolution* left Capetown in November 1772, but it seems more probable that this and some other paintings of Cape birds (see ff. 115, 116) were finished at sea and dated only then. It is difficult to accept Sharpe's suggestion (1906 : 189) that this may be a representation of *Demigretta sacra*, a bird lacking the streaks on the neck, and with yellow legs ; besides, Georg Forster's plate 114 is quite a good likeness of that species. The two birds closest to the painting are immatures of *A. cocoi* Linn. and *A. cinerea* Linn. ; both of these are grey herons with streaks on the neck, but *A. cocoi* when immature has whitish thighs and dull black legs and feet, while *A. cinerea* has greenish legs. The latter is a South African breeding bird but the former is a South American species unlikely to have been in a South African menagerie during the eighteenth century. If Forster made a preliminary sketch in November 1772, when he was at the Cape, and finished it later at sea from memory, that might account for the colour of the legs being wrong, in which case the painting would be acceptable as a not very good representation of *A. cinerea*.

113. ? *Ardea cinerea* Linn., 1758. Common Grey Heron.

Rather a hastily executed unsigned, pencil sketch of a bird seen, apparently, in the menagerie at the Cape of Good Hope. (D.) "Forster." (Al.) "Prom bon Spei in Vivario. *Ardea cocoi*."

Sharpe thought that this drawing was unidentifiable (1906 : 189). The details of the bill, crown and crest, and the markings on the lower surface of the neck and breast, however, suggest that it may represent *A. cinerea* which as noted above, is a South African breeding bird.

114. *Demigretta sacra sacra* (Gm.), 1789. Blue phase of the Reef Heron or Matuku-Moana.

Unsigned painting, not quite finished, or a New Zealand specimen of this heron. "*Ardea jugularis*. Queen Charlotte's Sound. Matook." (D.) "Ge. Forster." (Al.) "—*coerulea* S.N.XIII : 631. n. 17."

J. R. Forster noted the extensive range and colour variation in this species and thought that it might be due to hybridization (1844 : 172-173).

Webber, f. 118.

115. *Bugeranus carunculatus* (Gm.), 1789. Wattled Crane.

A signed and finished painting, attributed by J. R. Forster to Schumacher (1844 : 47), but in view of Georg Forster's having written his monogram on the actual painting we can scarcely doubt that he was the artist. The crane was in the menagerie at the Cape. "G.F. 1773. *Ardea palearis*. Cape B. Sp." (D.) "G. Forster" (almost obliterated). (Al.) "*Ardea carunculata* S.N.XIII : 643."

For a comment on the date see f. 112. Another painting of a Wattled Crane (P.R. 56—Masson's collection), appears to have been made at the same time ;

Latham's plate of the species (1785 : pl. 78) seems to be a composite of that and of Forster's.

116. *Geronticus calvus* (Bodd.), 1783. Bald Ibis.

Signed and finished painting of a bird in the menagerie at Capetown (1844 : 49). "G.F. 1773." (D.) "Ge. Forster." (Al.) "*Tantalus cafer*—calvus S.N.XIII : 649."

For comment on the date see f. 112.

117. *Theristicus caudatus melanopsis* (Gm.), 1789. Black-faced Ibis.

Unsigned, almost completed painting. "Staten Land. 3 Jany. 1775. *Tantalus melanops*." (Al.) "—*is*. S.N.XIII : 653."

Forster's specimen went to Banks's collection (Latham, 1785 : 109) ; J. R. Forster described it in detail (1844 : 332-333).

M.E. 19 ; P.R. 15, 22, 62 ; A.M. 52.

118. *Erolia testacea* (Pallas), 1764. Curlew Sandpiper.

Signed and completed painting. "G.F. 1773. *Scolopax Cafra*." (D.) "Ge. Forster." (Al.) "—*africana* Cape of Good Hope."

This bird breeds in Northern Asia but winters in Africa and other countries south of the equator. J. R. Forster sent four specimens in spirit back to the Royal Society (1844 : 49).

119. *Numenius tahitiensis* (Gm.), 1789. Bristle-thighed Curlew.

Almost finished, unsigned painting. "*Scolopax tahitiensis*. Tewéa. May 3. 1774." (Al.) "18½/37. Otaheiti. S.N.XIII : 656."

Latham does not state whether he saw a drawing or a specimen in Banks's collection (1785 : 122). J. R. Forster described this bird in some detail (1844 : 242-244) comparing it with the European Curlew. For almost one hundred years after its discovery it was believed to be confined to the Pacific and its breeding place was unknown, but in May 1869, examples were collected by Bischoff in Alaska ; it was not until 1948 that the nest and eggs were actually discovered in that country by D. G. Allen, a member of an American expedition (*National Geographic Magazine*, Dec., 1948). This painting was reproduced in the *Illustrated London News* in June that year, with an account of the purpose of the expedition.

120. *Prosobonia leucoptera* (Gm.), 1789. Latham's White-winged Sandpiper.

Unsigned painting, with the background lightly sketched in, of a curious little sandpiper now extinct. "*Tringa pyrrhetraea*. Torowè. Taheitee." (Al.) "—*leucoptera* S.N.XIII : 678."

Full notes on this species are given under Ellis, f. 65. J. R. Forster remarks (1844 : 175) that the 15th and 16th primaries [probably secondaries] of the wing were white on the right and black on the left of the bird he examined. He adds that he was unable to get hold of another specimen. Latham remarks on variability in the birds he saw (1785 : 172).

Ellis, f. 65 ; Webber, f. 166.

121. *Thinornis novaeseelandiae* (Gm.), 1789. Sand Plover or Tuturuatu.

Finished, unsigned painting. "*Charadrius torquatula*. Doodoorroo-āttoo. Charlotte's Sound." (D.) "G. Forster." (Al.) "*—nova Seelandia* S.N.XIII : 684."

This species was actually discovered at Dusky Sound New Zealand (1844 : 108), although Georg Forster's specimen was from Queen Charlotte's Sound. It now occurs only at the Chatham Islands. It was represented in Banks's collection (Latham, 1785 : 206, pl. 83).

P.R. 11 ; M.E. 26.

122. *Pluviorhynchus obscurus* (Gm.), 1789. New Zealand Dotterel or Tuturiwhatu.

Unsigned, finished painting of a bird in breeding plumage. "*Charadrius Glareola*. Hapoho-ëra. April 4th. 1773. Dusky Bay." (D.) "Ge. Forster." (Al.) "*—obscurus* S.N.XIII : 686."

J. R. Forster gave a very careful description of this bird (1844 : 109-110). Latham may have seen a specimen as well as this drawing (1785 : 211).

123. *Pluvialis dominica fulva* (Gm.), 1789. Asiatic Golden Plover.

Unsigned, finished painting of a Golden Plover assuming winter plumage. "*Charadrius Glaucopus*. Tonga Tabboo or Amsterdam I." (D.) "Ge. Forster." (Al.) "*Charadrius fulvus* S.N.XIII : 687."

Gmelin refers to Latham's account of this species (1785 : 211) and quotes a description from Forster. This painting does not, however, appear to be the type since J. R. Forster gives only Tahiti as the habitat (1844 : 176) and neither of the Golden Plovers figured by his son (see next f.) came from there.

Ellis, f. 68.

124. *Pluvialis dominica fulva* (Gm.), 1789. Asiatic Golden Plover.

An unfinished and unsigned wash drawing of the species figured in f. 123. "*Charadrius glaucopus* var. N. Caledonia. Poemanghee ♂. Sept. 6. 1774. Cap. fuscum striatis fulvis, Collum simile sed pallidius. Eyes dark brown. Macula aurium fusca. Maculae flavescens & albadors. Tectrices alarum cinereofusca, albicante variae. Cauda rufa, fasciis fuscis." [Some of the terminations of the Latin words are indistinct and do not appear logical.] (D.) "Ge. Forster."

The monochrome used in this figure gives the bird the appearance of the Grey Plover *Squatarola squatarola* (Linn.) but the MS. notes clearly show that it is indeed the Golden Plover ; it is in rather fuller plumage than the bird in f. 123.

125. *Chionis alba* (Gm.), 1789. Sheath-bill.

Unsigned, completed painting. "Staten Land. Jany. 2d. 1775." (J. R. F.) "*Chionis lactea*." (Al.) "*Vaginalis alba* S.N.XIII : 705."

J. R. Forster refers to this species (1844 : 312, 313, 330), giving its habitat as New Year Island off Statenland, and South Georgia. Latham added New Zealand to its range (1785 : 269), a mistake which was copied by Gmelin. Latham's account suggests that he saw specimens ; his plate (no. 89) bears little resemblance to Forster's.

M.E. 31 ; A.M. 51.

126. *Gallirallus australis australis* (Sparrm.), 1786. South Island Weka of New Zealand.

Unsigned, finished painting of a member of this once-abundant species, discovered in Dusky Sound (1844: 110), March 1773. "*Rallus Troglodytes* N. Zeeland. wegga." (D.) "Ge. Forster." (Al.) "S.N.XIII: 713."

Latham, using Forster's notes and a specimen in the Leverian Museum (1785: 229) distinguished the forms of this rail as separate species. There is considerable variation throughout the genus which has long caused confusion in the nomenclature (Buller, 1888, etc.). Peters (1934: 178) thinks it unlikely that there is another South Island race of *G. australis*, since the ranges of two supposedly distinct forms overlap; he considers that more probably one form exists in two colour phases. M.E. 28, 29; P.R. 17, 61; A.M. 33.

- *127. *Rallus philippensis ecaudata* J. F. Miller, 1783. Banded Rail.

Unsigned, finished painting of a rail from Tonga (1844: 178). "*Rallus pacificus*. Namoka. ♀. July 1st, 1774." (D.) "Ge. Forster." (Al.) "*—philippensis* S.N.XIII: 714."

The date, only just legible, was two days after Cook left Tonga and probably refers to the time the painting was finished. J. R. Forster (1844: 178) described this bird as a Tongan variety of *Rallus pacificus* from Tahiti. In the first description published by Miller, whose plate was clearly taken from Forster's drawing, Tahiti was erroneously given as the habitat. This led to confusion and to another name being given to the Tongan bird which appears in current literature both as *R. p. ecaudata* Miller and *R. p. forsteri* Hartlaub. A note on the synonymy has been published elsewhere (Lysaght, 1953: 75). Miller makes no reference to a specimen and it is probable that this painting is the type.

128. *Rallus pacificus* Gm., 1789. Pacific Rail.

Unsigned painting, finished except for one leg. "*Rallus pacificus* Oomeeo-keteōw. Oomnaoe. Taheitee." (D.) "Ge. Forster." (Al.) "*—philippensis* β S.N.XIII: 714."

Gmelin's description of this species (1789: 717) was based on that of Latham who does not state whether he saw a specimen or a drawing. No museum specimens now exist and the plate in Rothschild's *Extinct Birds* (1907: pl. 26) is a copy of this painting of Forster's; there is a translation of J. R. Forster's description (1844: 177) in the same work. This species has been confused with *Rallus philippensis ecaudata* (f. 127); the synonymy is discussed briefly in the note on that species.

- *129. *Rallus caerulescens* Gm., 1789. Kaffir Rail.

A signed and completed plate of a bird in a menagerie at the Cape of Good Hope (1844: 50). "G.F. 1773. *Rallus Cafer*." (D.) "Ge. Forster." (Al.) "Prom. bon. spei. *—caerulescens* S.N.XIII: 716."

Latham's account was based on this drawing (1785: 234) which is therefore the type. The date of this drawing does not refer to the time when the specimen was collected (see f. 112 etc.).

130. *Porzana nigra* (Miller), 1784. Polynesian Black or Sooty Rail.

Finished, unsigned painting of this widely distributed little rail, discovered in 1773 (1844: 178). "*Rallus minutus*. Māho. Taheitee." (D.) "Ge. Forster." (Al.) "*—tabuensis* S.N.XIII: 717. n.20."

This species was recorded by J. R. Forster from both the Friendly and Society Islands. Latham gave Tanna as the habitat of a variety (1785 : 235) but Amadon (1942) discussing this bird under the name of *P. tabuensis* (see Lysaght, 1956), thought that there were no valid grounds for dividing the Polynesian birds into races although he has separated a form that occurs in Tasmania, New Zealand and the Chatham Islands.

Most of Sharpe's notes on this painting (1906 : 192) apply to the next one.

131. *Poliolimnas cinereus tannensis* (Forster), 1844. White-browed Crake.

Unsigned pencil sketch of a crake from Tanna, New Hebrides. "*Rallus tanensis*. ♀. 12th August, 1774." (D.) "Ge. Forster."

J. R. Forster described this bird (1844 : 275) and it is possible that M.E. 27 and A.M. 8 are other representations of it.

132. *Limnocolaptes flavirostris* (Swainson), 1837. Black Crake.

Unsigned painting, lacking detail, of a South African bird collected on the homeward voyage. "*Rallus aethiops* (C. B. S.) April 24th. 1775." (Al.) "*niger* S.N.XIII : 717. n.21. Prom. bon spei."

J. R. Forster described this bird (1844 : 400) but Swainson's account appeared seven years earlier.

133. *Afrotis afra afra* (Linn.), 1766. Black Korhaan.

An elaborate painting with an arum and other plants in the foreground, and a background of sea and hills. There is no doubt that, although this bears some resemblance to Hodge's work, it is by Georg Forster since his monogram and the date are written on a leaf near the middle of the foreground. "G.F.1773." (Al.) "*Otis afra* S.N.XIII : 724."

J. R. Forster (1844 : 52) remarks that he sent one of these birds from Capetown to the Royal Society.

134. ? *Afrotis afra afra* (Linn.), 1766. Black Koorhaan.

An unfinished and unsigned painting, perhaps representing the female and young of the above species as Sharpe suggested (1906 : 193). (D.) "Ge. Forster." (Al.) "*Otis afra* S.N.XIII : 724. Cape of Good Hope."

135. *Fringilla capensis* (Gm.), 1789. Cape Fringilla.

Unsigned, unfinished painting of a bird collected at the Cape on the homeward voyage (1844 : 400-404). "*Tetrao capensis*" [some notes on colouring are indecipherable]. (D.) "G. Forster." (Al.) "Pheasant. Prom. bon Spei."

J. R. Forster discusses this species at length and points out that although it is called a pheasant locally it is very different from the true pheasants. Latham spoke of a specimen in the British Museum (1782 : 756).

P.R. 36.

136. *Columba erythroptera* (Gm.), 1789. Latham's Garnet-winged Pigeon.

Finished, unsigned painting of a bird collected in 1773. "*Columba leucophrys*. Taheitee." (D.) "Ge. Forster." (Al.) "*pectoralis* MSS —*erythroptera* S.N.XIII : 775. n. 10."

This species was collected in the Society Islands on all three of Cook's voyages

to the Pacific. The birds painted by Parkinson and Forster came from Tahiti; on the third voyage Ellis painted one from Eimeo (Moorea), an island not far from Tahiti, and in that specimen the abdomen as well as the breast was white. Latham described one in the Leverian Museum which agrees with Forster's and which came from Eimeo, and noted, in Banks's collection, a variety with a ferruginous eye-stripe from Tahiti (1783 : 624-625); Gmelin, basing his account on Latham's, gave Eimeo as the habitat of the type. Temminck (1808-11 : 123) stated that he saw several in London collections; there is now one in the Leiden Museum labelled "Voyage de Cook. O. Tahiti. Cab. Bullock."

This species apparently became extinct in Tahiti and the other islands of the Society group in the eighteenth century, but was collected in the Tuamotu Islands by Captain Belcher (1 skin) and by T. R. Peale (2 skins) in the nineteenth century, and again in 1922 by the Whitney Expedition (20 adults; Murphy, 1924).

Parkinson, f. 35; M.E. 30; Ellis, f. 71.

137. *Hemiphaga novaeseelandiae* (Gm.), 1789. New Zealand Pigeon or Kereru.

Unsigned, almost completed painting. "*Columba argetraea*. Dusky Bay (N.Z.) April 3rd 1773. hagarèroo." (D.) "Ge. Forster." (Al.) "—*Nova Seelandia* S.N.XIII : 773."

The first published reference to this pigeon was by Parkinson (1773 : 115) who observed it at Queen Charlotte's Sound, in January 1770; his notes on the colours of the soft parts were published amongst his brief descriptions of Australian birds (Lysaght & Serventy, 1956). Latham's was the first detailed account (1783 : 640) but he gave no particulars about his sources of information. J. R. Forster's remarks (1844 : 80) contain nothing of particular interest about the species.

M.E. 5; A.M. 26.

*138. *Ptilinopus tannensis* (Latham), 1790. Tanna Fruit Dove.

Finished, unsigned painting of a specimen collected in Tanna, New Hebrides, 1774 (1844 : 264). "Tanna." (J. R. F.) "*Columba xanthura*." (D.) "Ge. Forster." (Al.) "—*curvirostra* β S.N.XIII : 777."

Latham described this dove from this drawing (1783 : 632, 1790 : 600) which is therefore the type; both he and Gmelin first regarded it as a variety of *Treron curvirostra* (Gm.), quite a different species.

139. *Ducula pacifica pacifica* (Gm.), 1789. Pacific Pigeon.

Unsigned, finished painting. "*Columba globicera*. Ooroobaria. Tongatabo. Amsterdam I." (D.) "Ge. Forster." (Al.) "—*aenea* S.N.XIII : 780. Sonnerat Nov. Guin. 169.t.102."

Sharpe (1906 : 193-194) thought that this plate probably represented the Pacific Pigeon.

A.M. 11; Ellis, f. 72.

140. *Ptilinopus purpuratus purpuratus* (Gm.), 1789. Purple-crowned Fruit Pigeon.

Unsigned, finished painting. "*Columba porphyracra*. Oo-oôpa. Taheiti." (D.) "Ge. Forster." (Al.) "—*purpurata* S.N.XIII : 784. n. 64."

J. R. Forster's notes on colour variation in these fruit pigeons (1844 : 167-168) are of interest especially in connection with recent work on the group by Ripley &

Birckhead (1942). Latham refers to a specimen from Tahiti in the Leverian Museum.

Parkinson, f. 34.

141. *Ptilinopus porphyraceus porphyraceus* (Temminck), 1821. Crimson-crowned Fruit Pigeon.

Fully finished, unsigned painting of a Tongan fruit pigeon. "*Columba porphyracra*. Amsterdam I." (Al.) "*purpurata* S.N.XIII: 784. n. 64."

J. R. Forster gives only a brief note on this Tongan bird (1844: 167).
M.E. 13; A.M. 12.

142. ? *Gallicolumba ferruginea* (Wagler), 1829. Tanna Ground Dove.

Unsigned, finished painting, without much detail, of a bird collected at Tanna, New Hebrides. "*Columba ferruginea*. Tanna. ♀. 17th Aug. 1774." (D.) "Ge. Forster."

J. R. Forster gives a number of details about this bird (1844: 265) which has been the subject of much discussion since this is the only record of its occurrence in Tanna. Salvadori pointed out (1893) that it was very close to *Gallicolumba stairi* Gray, 1856 from Samoa; since then Mayr (1935) has described a new and uncommon species, *santaecrucis*, close to *stairi*, from the Santa Cruz Islands and Espiritu Santo in the northern New Hebrides. In the British Museum there is a skin of a female from Betap, Espiritu Santo, collected in 1933, which is rather similar to Forster's painting. Variation in *stairi*, in which there are two types of female plumage, is discussed in some detail by Amadon (1943); in view of the assumption of a male type of plumage by some females in that species there are grounds for hesitating to adopt Stresemann's suggestion that Forster sexed his specimen incorrectly (1950: 84).

- *143. *Anthus novaeseelandiae* (Gm.), 1789. New Zealand Pipit or Pihoihoi.

Unsigned, finished painting. "*Alauda littorea*. Kogoo uroùre. Q. Charlotte's Sound." (D.) "New Zealand Lark. Latham syn. 2. p. 384. n.17. tab. 51. from this drawing." (Al.) "*—nova Seelandia* S.N.XIII: 799." On the back is also a little note in Georg Forster's hand, "2 N.Z. Mammalia, 35 N.Z. birds, 2 N.H.do., S.C.Q.C.S. N.Z. 7th Nov. 1774." N.H. probably means New Holland; two birds were brought from there by Captain Furneaux.

Latham (1783: 384) says that his description was taken from Banks's collection of drawings, and this one therefore is the type. Some of the white paint seems to have discoloured with age. See also M.E. 32 and A.M. 31.

144. *Creadion carunculatus* (Gm.), 1789. New Zealand Saddleback or Tieke.

An unsigned, finished painting of two birds, an adult above and an immature below. "*Sturnus carunculatus*. N.Z. Charlotte's Sound." (D.) "Ge. Forster." (Al.) "*—*S.N.XIII: 805."

Latham described this species (1783: 9) from specimens in the Leverian Museum as well as from J. R. Forster's notes; he confused the colouring of the female with that of an immature bird just as Forster did (1844: 81). The birds were taken in March 1773, in Dusky Sound, as well as in May or June in Queen Charlotte's Sound,

that is of course the southern autumn and early winter ; the immature plumage persists for a year, a fact which misled some later observers. The Saddleback was once common throughout New Zealand but is now very rare except in a few outlying islands.

M.E. 7 ; A.M. 19 ; Ellis, f. 73.

145. *Turnagra capensis* (Sparrm.), 1789. South Island Thrush or Piopio.

An unsigned, finished painting of an adult from Dusky Sound, another, not quite completed, of an immature bird from Queen Charlotte's Sound, and a pencil sketch of a bill." "*Turdus crassirostris* golóbeoo. Dusky Bay, April 4th. 1773." (The localities are also pencilled against the birds.) (D.) "Ge. Forster." (Al.) "S.N.XIII : 815.n.43."

J. R. Forster noted (1844 : 85) that there were two types of plumage but did not state that these were due to age or sex. Latham (1873 : 34) assumed that the younger, brighter bird was the female ; he described a specimen from the Leverian Museum, and his type ultimately went to the Natural History Museum in Vienna. A.M. 29.

146. *Aplonis ulietensis* (Gm.), 1789. A starling ; Latham's Bay Thrush.

Unsigned, finished painting of a bird from Raiatea in the Society Islands. "*Turdus badius*. Raiatea ♂ June 1st. 1774." (Al.) "—*ulietensis*. S.N.XIII : 815.n.44."

The synonymy of this bird has been discussed by Wilesworth (1892 : 45) who pointed out that the type and only specimen of *Aplonis mavornata* Buller, 1887 (*A. inornata* Sharpe, 1890) which Sharpe had suggested might be the type of *A. ulietensis* (1890 : 135-136), did not in fact agree with the measurements of Latham's Bay Thrush, the bird quoted by Gmelin in his description of *A. ulietensis*. Wilesworth had apparently not seen Forster's drawing which differs from the type of *A. mavornata* not only in size, but also in colour, shape of the tail, and other features ; one striking difference is that while the feathers of the head and neck in *A. mavornata* are tiny and lanceolate those in Forster's bird are fan-like with wavy transverse barring so that the head has a slightly curly appearance. A number of Polynesian species of *Aplonis* have recently been discussed by Mayr (1942) but no specimens further east than the Cook Islands were mentioned ; if these should occur it may be possible to revise our ideas of Georg Forster's bird which his father regarded as belonging to a new and distinct genus (1844 : 239). This painting was reproduced by Seeböhm (1881) but the copy was a poor one since the whole aspect of the bird was changed.

147a. *Cossypha caffra* (Linn.), 1771. Cape Robin.

Unsigned, finished painting of a specimen collected in 1775 (1844 : 404). "*Turdus phoenicurus* Cape of Good Hope." (Al.) "S.N.XIII : 816."

147b. *Cercomela familiaris* (Stephens), 1826. Familiar Chat.

Finished, unsigned painting of a bird collected in 1775 (1844 : 404). "*Turdus sordidulus*. Cape of Good Hope."

148. *Petroica (Miro) australis* (Sparrm.), 1788. South Island Robin or Toutouwai, of New Zealand.

Unsigned, finished painting. "*Turdus ochrotarsus* No. 3. N.Z. Dusky Bay. March 28th. 1773. Gha-Toitoi." (D.) "G. Forst" (almost trimmed away). (Al.) "*—albifrons* z S.N.XIII : 822."

The colouring here is fairly accurate but the bird has been made too plump. J. R. Forster says (1844 : 82) "*Suaviter cantillat homines non formidat, —saepius manu captus vel pileo.*" This little bird is still common in some localities and is remarkably tame, even more so than the English robin.

149. *Petroica macrocephala* (Gm.), 1789. Yellow-breasted Tit or Ngiru-ngiru.

Unsigned, finished painting of both the male (upper figure), and the female ; this species was collected in New Zealand in 1773 (1844 : 83) "*Turdus minutus*, Mirro-mirro. Queen Charlotte's Sound. N.Z."

Latham saw either a specimen or a drawing of this bird in Banks's collection.

150. *Petroica multicolor* (Gm.), 1789. Scarlet-breasted Robin of Norfolk Island.

Unsigned, finished painting of the male (left) and female. "*Turdus dibaphus*. Norfolk Isle, ♂ 11th. Oct. 1774."

J. R. Forster described both sexes (1844 : 267). Latham states (1783 : 343) that there was a male in Banks's collection and a female in the Leverian Museum. M.E. 35 ; A.M. 13.

151. *Turdus poliocephalus xanthopus* Forster, 1844. Vinous-tinted Blackbird.

Unfinished, unsigned painting : the vinaceous wash of the breast is not shown and there is little detail. The specimen was collected in Sept., 1774, in New Caledonia (1844 : 266). "*Turdus xanthopus* [*flavipes* crossed out]. N. Caledonia." (D.) "Ge. Forster." (Al.) "*—aurantius* S.N.XIII : 832."

Mathews regarded *xanthopus* as a full species (1930 : 580), but we have followed Mayr's arrangement (1931 : 22 ; 1941) whereby the Australonesian thrushes with yellow bills and legs are placed in *Turdus poliocephalus*, a species embracing a number of island races.

152. *Euplectes orix* (Linn.), 1758. Red Bishop-bird.

Signed, dated and completed plate of a specimen collected at the Cape of Good Hope, November 1772 (1844 : 53) : "G.F.1773." [See ff. 112, 116 etc. for note on this date.] (D.) "Ge. Forster." (Al.) "*Loxia orix* S.N.XIII : 863. *Emberiza orix* L. Cape."

J. R. Forster sent several of these birds to the Royal Society (*loc. cit.*).

- *153. *Acalanthe psittacea* (Gm.), 1789. Parrot-finch.

Barely finished, unsigned painting of a New Caledonian bird collected in September 1774 (1844 : 273). "New Caledonia." (D.) "Ge. Forster." (Al.) "*Loxia pulchella Fringilla psittacea* S.N.XIII : 903."

This painting is very similar to Latham's (1783 : pl. 48) and his description is so close to J. R. Forster's (*loc. cit.*) that it seems that the painting represents the type.

154a. *Fringillaria capensis* Linn., 1766. Cape Rock-bunting.

Unsigned, finished painting of a specimen collected on the homeward voyage, in 1775 (1844 : 405). "*Fringilla bicincta*. Cape of Good Hope." (Al.) "*—naevia* S.N.XIII : 911."

154b. *Spheneacus afer* (Gm.), 1789. Cape Grass-bird.

Unsigned, finished painting of another South African bird collected at the Cape of Good Hope on the homeward voyage (1844 : 407) "*Muscicapa dubia*. Cape of Good Hope" (Al.) "*—afra* S.N.XIII : 940."

Latham gives no information about the source of his material (1783 : 332).

155. *Rhipidura fuliginosa* (Sparrm.), 1787. New Zealand Fantail or Piwakawaka.

Unsigned, finished painting. "*Muscicapa ventilabrum*. No. 4. N.Z. March 28th. 1773. diggo wagh wagh." (D.) "Fan-tailed Flycatcher. Latham syn. 2. p. 340. n. 33. tab. 49. from this drawing." (Al.) "*—flabellifera* S.N.XIII : 943."

Latham's plate is very close to Forster's but he also saw some specimens. J. R. Forster noted that this bird was very tame (1844 : 86) and that it would perch on a man's head or shoulder to catch the flies he disturbed. It is a species that has adapted itself to settlement and it readily enters houses in the country or on the outskirts of towns.

156. *Pomarea nigra* (Sparrm.), 1786. Society Islands Flycatcher.

Finished, unsigned painting of a young bird. "*Muscicapa lutea*. Oo-ma-mao pooo hou. Taheitee." (D.) "Ge. Forster." (Al.) "S.N.XIII : 944. n. 70."

The sexes are alike. J. R. Forster described the young bird as *Muscicapa lutea* (1844 : 169) and the adult as the male of *Muscicapa atra* (p. 170); the Tongan bird which he thought was the female has not yet been identified. Murphy & Mathews do not mention a Tongan species in their paper on *Pomarea* (1928).

*157. *Mohoua ochrocephala* (Gm.), 1789. Yellow-head or Mohua.

Unsigned, finished painting. "*Muscicapa Chloris*. Queen Charlotte's Sound. S.C.Q.C.S. N.Z. 4. 3d. N. 1774." (D.) "Ge. Forster." (Al.) "*—ochrocephala* S.N.XIII : 944 n. 71."

Latham's account of the bird (1783 : 342), the basis of Gmelin's description, was founded on this drawing which is therefore the type. J. R. Forster's account of the species is dated April 4th, 1773, when they were at Dusky Sound (1844 : 87).

*158. *Zosterops flavifrons flavifrons* (Gm.), 1789. Yellow-fronted White-eye.

Unsigned, finished painting of a specimen collected in Tanna, New Hebrides. "*Muscicapa? heteroclita*. Tana. Aug. 7th. 1774." (D.) "Ge. Forster." (Al.) "*—flavifrons* S.N.XIII : 944. n. 72."

Latham described this species (1783 : 343) from this drawing which can therefore be regarded as Gmelin's type. See also J. R. Forster, 1844 : 271.

A.M. 16.

159. *Lalage leucopyga montrosieri* Verreaux and des Murs, 1860. New Caledonian Caterpillar-catcher or Long-tailed Triller.

Unsigned, almost finished painting of a specimen collected September 1774 (1844 : 269). "*Muscicapa naevia* N. Caledonia." (Al.) "S.N.XIII : 944, n. 73."

I have followed Mayr & Ripley (1941) in using *Lalage* as the generic name of this bird. Gmelin described it in 1789 but employed a name that was pre-occupied; therefore the later name and description of the French authors became valid.

160. *Cinclodes patagonicus* (Gm.), 1789. Patagonian Cinclodes.

Unsigned, finished painting of a bird found feeding on the shore, 26th December, 1774, at Christmas Sound or nearby, in Terra del Fuego (1844: 324). "Terra del Fuego." (Al.) "*Motacilla gracula* . . . *patagonica* S.N.XIII: 957."

The Forsters' specimens apparently went to the Leverian Museum where they were seen by Latham (1783: 434).

161. *Aphrastura spinicauda spinicauda* (Gm.), 1789. Thorn-tailed Creeper.

Almost finished, unsigned painting. "*Motacilla seticauda*. Terra del Fuego. December 21st. 1774." (D.) "Thorn-tailed Warbler. Latham syn. 2. p. 463. n. 71. tab. 52 from this figure and the following." (Al.) "*—spinicauda* S.N.XIII: 978."

Latham's plate seems to be a composite of this painting and the pencil sketch on the next folio; he says that his material was derived from Banks's collection.

162. *Aphrastura spinicauda spinicauda* (Gm.), 1789. See f. 161.

Unsigned pencil sketch of the head, back and one wing, with a detailed drawing of the tail. (Al.) "*Motacilla seticauda*."

This drawing may not be by Georg Forster; his father refers to "Fig. pict. F. et G." (1844: 328), dating his description 26th December, and it may be that he himself made this sketch; in his other references to artists he has given the whole name at least once.

*163. *Scytalopus magellanicus* (Gm.), 1789. Magellanic Babbler.

Unsigned, almost finished painting. "*Motacilla Magellanica*. Terra del Fuego. 28th December 1774." (D.) "Forster." (Al.) "S.N.XIII: 979. n. 137."

According to J. R. Forster (1844: 327) these small Babblers feed amongst rocks and heaps of stones as does the European Wren. It was from this painting that Latham drew up his description (1783: 464) and it is therefore the type.

164. *Acanthisitta chloris* (Sparrm.), 1787. Rifleman or Titi-pounamu.

Unsigned, finished painting of an adult female. "*Motacilla Citrinella*. Dusky Bay, New Zealand." (D.) "Ge. Forster." (Al.) "*—a* S.N.XIII: 979. n. 138."

This species was collected by the Forsters on 2nd April, 1773 (1844: 89).

A.M. 15, M.E. 39.

*165. *Xenicus longipes* (Gm.), 1789. Bush Wren or Matuhi.

Unsigned, finished painting. "*Motacilla longipes*. E.Teetee tu poonom. New Zealand. Dusky Bay." (Al.) "S.N.XIII: 979. n. 139."

Georg Forster appears to have confused the Maori name of this wren with that of the Rifleman in the preceding painting. His father does not mention it in his account

(1844 : 88). Latham refers his description to this drawing (1783 : 465) which is thus the type.

*166. *Finschia novaeseelandiae* (Gm.), 1789. Brown Creeper or Pipipi.

Unsigned, finished painting of a specimen collected in New Zealand in 1773 (1844 : 90). " *Parus Urostigma*. Toe-Toe. Dusky Bay." (D.) "Ge. Forster." (Al.) "*—nova Seelandia* S.N.XIII : 1013."

Oliver (1930 : 478) thought that this painting had been reproduced by Gray in the *Voyage of the Erebus and Terror* (Zool., Birds, 1845) but the supposed copy lacks the streaks on the undersurface and the white eye-stripe which are so conspicuous in Forster's plate. J. R. Forster gives only a brief note on this species (1844 : 90). Latham based his account on this drawing which is therefore the type (1783 : 558).

167. *Hirundo tahitica* Gm., 1789. Tahitian Swallow.

Finished, unsigned painting of a specimen collected in 1774. "Taheitee." (Al.) "*Hirundo pyrrholaema*, *—tahitica* S.N.XIII : 1016."

Latham saw one of these swallows in Banks's collection. J. R. Forster's account is a detailed one (1844 : 241).

168. *Collocalia leucophaea leucophaea* (Beale), 1848. Tahitian Swiftlet.

Unsigned, finished painting of a bird collected in 1774 (1844 : 240). "*Hirundo peruviana*. Taheitee. (D.) "Forster." (Al.) "(Brisson b.) *—cinerea* S.N.XIII : 1026."

The synonymy of the species is discussed by Hartert (1892 : 502) who, however, does not refer to this painting. J. R. Forster thought that this swiftlet occurred in Peru as well as in Tahiti but this is not so.

8. BIRDS PAINTED BY AN UNKNOWN ARTIST ON COOK'S SECOND VOYAGE

Three sets of these paintings exist. The first is in the Royal Scottish Museum and each of the 38 paintings comprising it bear the letters M.E. and a number. M.E. is believed to stand for *Museum Edinense*. The possible identity of the painter is discussed in the notes on William Anderson who is believed to have owned the paintings. The second set is in the British Museum (Print Room). It was acquired by Banks who has written on the back of most of the plates "Captain Clarke [*sic*] 1775." They are clearly by the artist responsible for the two other sets. The third set is now in the Mitchell Library, Sydney, but for many years it was in the Australian Museum and was generally regarded as the work of Georg Forster (Iredale, 1925) ; it includes copies of ten of his paintings. This set was originally in the possession of Admiral Isaac Smith, a cousin of Mrs. Cook's. He was with Cook on the Newfoundland survey, a midshipman then master's mate on the first voyage round the world, and master's mate on the *Resolution* on the second voyage. The paintings were bought by the Agent-General for New South Wales from Canon Frederick Bennett, the son of Mrs. Cook's executor and residuary legatee (Beaglehole, 1955, cxcvii, 590). Isaac Smith apparently named the birds and noted the localities long after

the voyage, and much of his information is misleading. His MS. is pasted inside the volume and Canon Bennett copied his notes on to the drawings. The task of identifying the birds from photographs was made easier by the existence of 36 duplicates in the Edinburgh and London sets; later I was able to visit Sydney and examine the originals myself. I have assumed that on the whole the localities given by Banks are correct. See footnote p. 262.

(a) *Thirty-eight Coloured Drawings of Birds of the Southern Hemisphere, executed from the Life, in the Course of Captain Cook's Second Voyage. Royal Scottish Museum, ff. 5-42.*

5. *Hemiphaga novaeseelandiae* (Gm.), 1789. New Zealand Pigeon.
A.M. 26; Forster, f. 137.

6. *Callaeas cinerea* (Gm.), 1788. Orange-wattled Crow or South Island Kokako.
P.R. 12; Forster, f. 52; A.M. 19.

7. *Creadion carunculatus* (Gm.), 1789. Saddleback or Tieke of New Zealand.
A.M. 19; Forster, f. 144; Ellis, f. 73.

8. *Conopodera caffra longirostris* (Gm.), 1789. Long-billed Warbler of the Society Islands. [Pl. 37a.]
A.M. 28; Forster, f. 55; Ellis, f. 76; Webber, f. 139.

9. *Philemon diemensis* (Lesson), 1831. New Caledonian Friar Bird.
P.R. 18; A.M. 21.

10. *Myzomela cardinalis cardinalis* (Gm.), 1788. Cardinal Honey-eater, New Hebrides.
A.M. 24; Forster, f. 63.

11. *Glyciphila melanops* (Lath.), 1801. Tawny-crowned Honey-eater, Tasmania.

Gadow has pointed out that some immature birds have a yellow patch on the throat (1884: 211); this can be seen in some of the skins in the Museum and in this drawing. The Tasmanian race of this bird has a particularly long bill. Latham appears to have seen specimens.

A.M. 23.

12. *Vini peruviana* (P. L. S. Müller), 1776. Tahitian Blue Lory.
Parkinson, f. 9; Forster, f. 49; Ellis, f. 14; Webber, f. 140.

13. *Ptilinopus porphyraceus porphyraceus* (Temm.), 1821. Crimson-crowned Fruit Dove, Tonga.
A.M. 12; Forster, f. 141.

14. *Graucalus caledonicus* (Gm.), 1788. New Caledonian Cuckoo Shrike.

Forster, f. 53; P.R. 19; A.M. 6.

15. *Halcyon chloris* ? subsp. A White-collared Kingfisher.

The width of the superciliary stripe, the nuchal collar and the blue stripe below the eye, suggest that the race depicted is *erromangae* Mayr, 1938, from Erromanga in the New Hebrides; the pale undersurface, mainly white with a few faint touches of buff, is however more characteristic of *juliae* Heine, 1860 which occurs in the central New Hebrides and could have been collected in Malekula. The circumstances in which Cook landed on Erromanga make it unlikely that any collecting was done there apart from a water-snake which the Forsters caught from their boat.

16. *Lichmera incana* (Lath.), 1790. New Caledonian Honey-eater.

Latham copied his description of this species from Anderson's MS. (*Char. brev. avium in itin.* 1772-75: 13). J. R. Forster described this bird as *Certhia chlorophaea* from New Caledonia (1844: 264) but his son did not paint it.

17. *Prothemadera novaeseelandiae* (Gm.), 1788. Tui or Parson-bird, New Zealand.

P.R. 23, 63; A.M. 20; Forster, f. 61; Ellis, f. 25.

18. *Halcyon leucocephala actaeon* (Lesson), 1830. Cape Verde Islands Kingfisher.

A.M. 10; Forster, f. 60.

19. *Theristicus caudatus melanopsis* (Gm.), 1788. Black-faced Ibis, from New Year Island off Statenland.

P.R. 15, 22, 62; A.M. 52; Forster, f. 117.

20. *Tachyeres pteneres* (Forster), 1844. Magellanic Steamer Duck, Statenland.

Forster, f. 68.

21. *Phalacrocorax magellanicus* (Gm.), 1789. Magellanic or Rock Shag, Terra del Fuego.

A.M. 48; Forster, f. 105.

22. *Phalacrocorax punctatus punctatus* (Sparrm.), 1786. Spotted Shag or Parekareka, New Zealand.

23. *Pelecanoides urinatrix urinatrix* (Gm.), 1789. Common Diving Petrel or Kuaka, New Zealand.

Forster, f. 88.

24. *Fregetta fuliginosa* (Gm.), 1789. Latham's Sooty Petrel.

According to a note on the back of a duplicate, P.R. 10, of this painting, this bird was taken at Tahiti. It is very similar to the unique type specimen of *Fregetta moestissima* (Salvin), 1879, from Samoa. I have followed Bourne (1957) in his identification of the species which he has discussed in detail on the basis of these

old illustrations, and with reference to recent work by Murphy & Snyder on *Fregetta albigularis* (Finsch), 1877.

25. *Rallus philippensis swindellsii* (Math.), 1911. New Caledonian Banded Rail.
A.M. 7.
26. *Thinornis novaeseelandiae* (Gm.), 1789. Sand Plover or Tuturuatu, New Zealand.
P.R. 11 ; Forster, f. 121.
27. *?Poliolimnas cinereus tannensis* (Forster), 1844. White-browed Crake, probably from Tanna, New Hebrides.
A.M. 8 ; Forster, f. 131.
28. *Gallirallus australis australis* (Sparrm.), 1786. South Island Weka of New Zealand.
The identification of this crude sketch would have been impossible had there not been two finished paintings, P.R. 17, 61, of the same bird, identical in outline, in the companion set in the Print Room. See also next folio.
29. *Gallirallus australis australis* (Sparrm.), 1786. South Island Weka of New Zealand.
A smaller and better drawing than f. 28.
P.R. 17, 61 ; A.M. 33 ; Forster, f. 126.
30. *Gallicolumba erythroptera* (Gm.), 1789. Latham's Garnet-winged Pigeon, probably from Tahiti.
Parkinson, f. 35 ; Forster, f. 136 ; Ellis, f. 71.
31. *Chionis alba* (Gm.), 1789. Sheath-bill, most probably from New Year Island off Staten-land.
A.M. 51 ; Forster, f. 125.
32. *Anthus novaeseelandiae* (Gm.), 178. New Zealand Pipit.
Forster, f. 143 ; A.M. 31.
33. *Anthornis melanura* (Sparrm.), 1786. New Zealand Bellbird or Korimako.
A.M. 22 ; Forster, f. 62.
34. *Pomarea nigra* (Sparrm.). Society Islands Flycatcher.
F. 41, below, and Forster's f. 156 show a young bird of this species which was described (1844 : 169) as *Muscicapa lutea*.
35. *Petroica multicolor multicolor* (Gm.), 1789. Scarlet-breasted Robin of Norfolk Island.
This race differs from that of the New Hebrides in having much more white on the forehead.
A.M. 13 ; Forster, f. 150.

36. *Chalcites lucidus* (Gm.), 1788. Shining Cuckoo or Pipiwharauoa of New Zealand.
A.M. 5 ; Forster, f. 57.
37. *Aplonis striatus striatus* (Gm.), 1788. Glossy Starling, a female, New Caledonia.
A.M. 30 ; Forster, f. 54.
38. *Pachycephala xanthetreae* (Forster), 1844. New Caledonian Thickhead, a male.
A.M. 17.
39. *Acanthisitta chloris* (Sparrm.), 1787. Rifleman or Titi-pounamu of New Zealand.
A.M. 15 ; Forster, f. 164.
40. *Porzana nigra* (Miller), 1784. Polynesian Black or Sooty Rail, widely distributed in the Pacific islands
Forster, f. 130.
41. *Pomarea nigra* (Sparrm.), 1786. Society Islands Flycatcher, young bird.
See f. 34 for the adult. Forster, f. 156.
42. *Gerygone flavolateralis* (Gray), 1859. Fantail Warbler, New Caledonia.
A.M. 14.
- (b) *Seventeen Paintings by an Unknown Artist Contained in Brit. Mus. (Print Room) Vol. 199* B 4, ff. 7-23.*
7. *?Circus cyaneus* Linn., 1766. Cinereous Harrier.
Unsigned painting. (B.) "Capt. Clarke 1775 Staten Land." (Al.) "Falcon."
Curiously enough this is the only record of this harrier from either the first or second voyages ; the painting is almost identical with A.M. 32, q.v., which is marked New Caledonia.
8. *Eudyptula minor minor* (Forster), 1781. Little Blue Penguin.
Unsigned painting. (B.) "New Zeland Captn. Clarke 1775. Spec. sic." "Sp. vin. from Captn. Cooke", and "Georgia", also in Banks's hand have been crossed through. (Al.) "*Aptenodytes minor* Forster."
The date perhaps denotes the year in which the plate was given to Banks ; the *Resolution* was in New Zealand both in 1773 and 1774 but not in 1775.
Forster, ff. 84, 85.
9. *Aptenodytes patagonicus* J. F. Miller, 1778. King Penguin.
Unsigned painting. (B.) "s Georgia Captn. Clarke 1775. et in sp. vin. Captn. Cooke." (Al.) "*Aptenodytes patagonica* Forster." "*hyperpolius*" in the same hand has been crossed out.
This painting is rather a better representation of a King Penguin than Forster's f. 81. The *Resolution* visited South Georgia in 1775.
Ellis, f. 46 ; Webber, f. 124.

10. *Fregetta fuliginosa* (Gm.), 1789. Latham's Sooty Petrel.

Unsigned painting. (B.) "Captn. Clarke 1775 Otaheite." (Al.) "*Procellaria*."

This painting is a close copy of M.E. 24, and the identity of the species is discussed in the notes on that painting, which is not on the same type of paper.

11. *Thinornis novaeseelandiae* (Gm.), 1789. New Zealand Sand Plover, or Tuturuatu.

Unsigned painting. (B.) "Captn. Clarke 1775 New Zealand in sp. vin." (Al.) "*Charadrius torquatula* Forster."

This painting (on Whatman paper) and M.E. 26 are very similar indeed, but the latter is on different paper.

12. *Callaeas cinerea* (Gm.), 1788. South Island Kokako, or Orange-wattled Crow.

Unsigned painting. (B.) "New Zeland Captn. Clarke 1775." (Al.) "*Callaeas cinerea*."

This is very similar to A.M. 19 and M.E. 6, except that in them the bough on which the bird stands is only a fragment of the tree shown in this painting.

Forster, f. 52.

13. *Nestor meridionalis* (Gm.), 1788. Green Kaka.

Unsigned painting. (B.) "New Zealand Captn. Clarke 1775." (Al.) "Latham p. 265-70 *Psittacus hypopolius* Forster."

The outline of this kaka is almost identical with that in the first painting of the Australian Museum series, but the former is a landscape and the latter an upright. The legs of both birds are ill-proportioned. In A.M. 1 the kaka is shown standing on a bare stump; in the other the painter has drawn the stems of a curious New Zealand lily, the Supple-jack (*Rhipogonum scandens* Forster, 1776), twisting about the stump, and a tree-fern in the distance, details that were almost certainly noted on the spot. This latter painting is on Whatman paper.

Neither of these drawings resembles Georg Forster's representation of the same species, f. 50, or that by Ellis, f. 15.

14. *Phalacrocorax punctatus* (Sparrm.), 1786. Spotted Shag or Parekareka.

Unsigned painting. (B.) "[Ca]ptn. Clarke New Zeland 1775." (Al.) "*Pelecanus punctatu[s]* Forster."

This plate is very close to M.E. 22 and also A.M. 47; it does not resemble Forster's version of the same species, f. 103.

15. *Theristicus caudatus melanops* (Gm.), 1789. Black-faced Ibis.

Unsigned painting. (B.) "[Christ]mas harbour Terra del Fuego Captn. Clarke 1775." (Al.) "*Tantalus melanops* Forster. *Tantalus*."

There are three versions of this ibis in this volume: f. 22 is on the same paper as this one, and all the annotations are the same save that Banks's remarks have not been trimmed. F. 62 is a highly professional copy by Gertrude Metz, on Whatman paper. M.E. 19 is almost identical with ff. 15 and 22 but the carefully drawn legs

and feet are uncoloured and there is no attempt at a background ; it is on paper that differs from both kinds used in the B.M. versions. Forster's f. 117 differs from all of these and is more like Latham's (1785 : pl. 79), but Latham says (*op. cit.* : 109) "The specimen is in the collection of Sir Jos. Banks", so none of these drawings is the type.

16. *Sula leucogaster plotus* Forster, 1844. Australian Brown Gannet of Booby.

Unsigned painting. (B.) "[Cap]tn Clarke [New] Caledonia." (Al.) "*Pelecanus fiber*."

This appears to be identical with A.M. 46.

Forster, f. 108.

17. *Gallirallus australis australis* (Sparrm.), 1786. South Island Weka of New Zealand.

Unsigned painting. (B.) "New Zeland Captn. Clarke 1775." (Al.) "*Rallus Troglodytes* Forster."

This is a finished version of M.E. 28 which is so crude that it is scarcely recognizable. F. 61 in this volume is a highly professional copy by Gertrude Metz.

A.M. 33 ; M.E. 28, 29 ; Forster, f. 126.

18. *Philemon diemensis* (Lesson), 1831. New Caledonian Friar Bird.

Unsigned painting. No. MS. notes.

This is very similar to M.E. 9 but a less good representation of the bird in that the brownish colouring of the back is too much reduced.

19. *Graucalus caledonicus* (Gm.), 1788. New Caledonian Cuckoo Shrike.

Unsigned painting. Most of Banks's note on the back has been trimmed away but the remains of "Caledonia" can be made out and also "sicc.". (Al.) "*Corvus cinereus* Forster Lath. p 377 n.7."

This is a close copy of M.E. 14 ; Forster's f. 53 of this species is very different.

20. *Eunymphicus cornutus* (Gm.), 1788. Crested Parakeet.

Unsigned painting. (B.) "New Caledonia. Captn. Clarke 1775. [s]pec. sicc." (Al.) "*Psittacus bisetus* Forster Lath p. 248 n. 48."

This differs from Forster's plate of the species, and is not represented in the Edinburgh collection. It seems, however, to be a close copy of A.M. 3.

F. 64 in this volume is an accomplished study by Gertrude Metz of one of these parrots.

21. *Sterna fuscata* Linn., 1766. Sooty or Wideawake Tern.

Unsigned painting. (B.) "[Ca]ledonia." (Al.) "*Sterna serrata* Forster."

This is a copy of A.M. 44 ; Forster's f. 110 differs.

22. *Theristicus caudatus melanopsis* (Gm.), 1789. Black-faced Ibis.

Unsigned painting. (B.) "Christmas Harbour Terra del Fuego Captn. Clarke 1775."

See f. 15.

23. *Prosthemadera novaeseelandiae* (Gm.), 1788. Tui or Parson-bird.

Unsigned painting. (*Al.*) "Lath. p. 602-17."

This is a much better painting than the Edinburgh version (M.E. 17). Forster's f. 61 differs considerably from both. F. 63 in this volume is a more professional but less accurate painting of a tui by Gertrude Metz.

- (c) *Fifty-four Paintings by an Unknown Artist of Birds from Captain Cook's Second Voyage, formerly attributed to Georg Forster and Owned by the Australian Museum, now in the Mitchell Library, Sydney, ff. 1-53.*

1. *Nestor meridionalis* (Gm.), 1788. Green Kaka of New Zealand.

This was reproduced by Oliver (1930) as a Forster painting but it is not his work. P.R. 13 is very similar.

Forster, f. 50 ; Ellis, f. 15.

2. *Cyanoramphus novaeseelandiae* (Sparrm.), 1787. Red-fronted Parakeet or Kakariki of New Zealand.

Forster, ff. 44-46 ; Ellis, f. 12.

3. *Eunymphicus cornutus* (Gm.), 1788. Crested Parakeet of New Caledonia.

This seems to be identical with P.R. 20, q.v.

P.R. 64 ; Forster, f. 43.

4. *Eudynamis taitensis* (Sparrm.), 1787. Long-tailed Cuckoo.

This bird breeds in New Zealand and winters in Tahiti and other Pacific islands. Forster f. 56.

5. *Chalcites lucidus* (Gm.), 1788. Shining Cuckoo or Pipiwharauoa.

This species breeds in New Zealand and winters in the Solomon and other islands of the south-west Pacific.

This painting appears to be a copy of M.E. 36.

6. *Graucalus caledonicus* (Gm.), 1788. New Caledonian Cuckoo Shrike.

This is very similar to M.E. 14 and P.R. 19 but in those two there is much more detail in the background.

Forster, f. 53.

7. *Rallus philippensis swindellsii* (Math.), 1911. New Caledonian Banded Rail.

This is an obvious copy of M.E. 25, which represents the above rail, even the details of the background are very similar.

8. ? *Poliolimnas cinereus tannensis* (Forster), 1844. White-browed Crake, probably from Tanna.

There is an MS. note "A small plover from New Zealand" on this painting but it is identical with M.E. 27 which is unfinished but has been tentatively identified

as the above crake ; the legs are too small but this is noticeable in nearly all the paintings by this artist.

Forster, f. 131.

9. *Halcyon chloris* ? subspecies. A White-collared Kingfisher.

This painting appears to be of the bird depicted in M.E. 15, q.v.

10. *Halcyon leucocephala acteon* (Lesson), 1830. Cape Verde Islands Kingfisher.

This is a copy of Georg Forster's f. 60. The bird is well done but the rest of the painting is poor and it seems unlikely that it is Forster's work.

M.E. 18 is quite a different painting of this species.

11. *Ducula pacifica pacifica* (Gm.), 1789. Pacific Pigeon.

This was probably taken at Tonga where Georg Forster painted this widespread Pacific species.

Ellis, f. 72 ; Forster, f. 139.

12. *Ptilinopus porphyraceus porphyraceus* (Temm.), 1821. Crimson-crowned Fruit Pigeon of Tonga.

This appears to be a copy of M.E. 13.

See also Forster, f. 141. Iredale gives Tahiti as the locality and quotes this species as Forster, f. 140, but this seems to be a typographical slip since the latter drawing (q.v.) represents another pigeon.

13. *Petroica multicolor multicolor* (Gm.), 1789. Scarlet-breasted Robin of Norfolk Island.

Apparently a close copy of M.E. 35.

Forster, f. 150.

14. *Gerygone flavolateralis* (Gray), 1859. Fantail Warbler of New Caledonia.

This painting is similar to M.E.42.

15. *Acanthisitta chloris* (Sparrm.), 1787. Rifleman or Titi-pounamu of New Zealand.

Apparently a close copy of M.E. 39.

Forster, f. 164.

16. *Zosterops flavifrons flavifrons* (Gm.), 1789. Yellow-fronted White-eye from Tanna, New Hebrides.

Forster, f. 158.

17. *Pachycephala xanthetraea* (Forster), 1844. New Caledonian Thickhead, a male.

Apparently a close copy of M.E. 38.

18. *Creadion carunculatus* (Gm.), 1789. Saddleback or Tieke of New Zealand.

Apparently a close copy of M.E. 7.

Forster, f. 144 ; Ellis, f. 73.

19. *Callaeas cinerea* (Gm.), 1788. Orange-wattled Crow or South Island Kokako.
Apparently a copy of M.E. 6 and P.R. 12.
Forster, f. 52.
20. *Prothemadera novaeseelandiae* (Gm.), 1788. Tui or Parson-bird of New Zealand.
Apparently a copy of P.R. 23.
Forster, f. 61 ; M.E. 17 ; P.R. 23, 63 ; Ellis, f. 25.
21. *Philemon diemenensis* (Lesson). New Caledonian Friar Bird.
Apparently a close copy of M.E. 9.
P.R. 18.
22. *Anthornis melanura* (Sparrm.), 1786. New Zealand Bellbird or Korimako.
Apparently a close copy of M.E. 33.
Forster, f. 62.
23. *Glyciphila melanops* (Lath.), 1801. Tawny-crowned Honey-eater of Tasmania.
Apparently a close copy of M.E. 11.
24. *Myzomela cardinalis cardinalis* (Gm.), 1788. Cardinal Honey-eater of the New Hebrides.
Apparently a close copy of M.E. 10.
Forster, f. 63.
25. *Myiagra caledonica* Bonaparte, 1857. Broad-billed Flycatcher.
This painting shows the bird's head tilted slightly so that the width of the bill is noticeable, and there seems no doubt that it is intended to be a representation of this flycatcher. The Prussian blue of the head, upper back and breast, and absence of white on the rump preclude its being the White-breasted Wood Swallow, as Iredale suggested.
26. *Hemiphaga novaeseelandiae novaeseelandiae* (Gm.), 1789. New Zealand Pigeon or Kereru.
This appears to be a copy of M.E. 5.
Forster, f. 137.
27. *Hemiphaga novaeseelandiae spadicea* (Latham), 1801.
Norfolk Island Pigeon, now extinct.
28. *Conopoderas caffra longirostris* (Gm.). Long-billed Warbler of the Society Islands.
Apparently a copy of M.E. 8.
Forster, f. 55 ; Ellis, f. 76 ; Webber, f. 139.
29. *Turnagra capensis* (Sparrm.), 1789. South Island Thrush or Piopio of New Zealand.
Forster, f. 145.

30. *Aplonis striatus* (Gm.). Glossy Starling, female, New Caledonia.

According to Iredale this is a representation of the New Zealand Robin *Petroica (Miro) australis* (Sparrm.), 1788, but we find this difficult to accept. It is a fair representation of the New Caledonian bird.

M.E. 37.

31. *Anthus novaeseelandiae* (Gm.), 1789. New Zealand Pipit.

Apparently a copy of M.E. 39.

Forster, f. 143.

32. ? *Circus approximans* Peale. New Caledonian Harrier.

The identity of this harrier is doubtful since the painting is almost identical in detail with P.R. 7 (q.v.) which appears to represent a harrier from Staten Land. Reinhold Forster recorded a harrier from the Isle of Pines (1844:257) so that in this instance we should not perhaps doubt the locality, New Caledonia, given by Isaac Smith. Nevertheless there is such a close resemblance between the two paintings that it seems clear that they are intended to represent the same bird.

33. *Gallirallus australis* (Sparrm.), 1786. South Island Weka of New Zealand.

A finished version of M.E. 28; the details of the feet and tail are closer in outline to that preliminary sketch q.v. than to the finished study of P.R. 17.

P.R. 61; M.E. 28, 29; Forster, f. 126.

34. *Chloephaga hybrida* (Molina), 1782. Kelp Goose of Terra del Fuego.

The light colour of the beak, the white tail and other details of this plate show that it is intended to represent the female Kelp Goose which was painted in an almost identical position by Forster, f. 66. The locality, New Zealand, on the A.M. plate is obviously incorrect.

35. *Tachyeres pteneres* (Forster), 1844. Magellanic Steamer Duck.

Apparently a copy of M.E. 20.

Forster, f. 68.

36. *Pterodroma macroptera* (Smith), 1840. Great-winged Petrel.

This is a poor version of Forster's f. 93b.

- 37, 37a. *Daption capensis* (Linn.), 1758. Cape Pigeon or Pintado Bird.

The first of these two drawings is a poor copy of Forster's f. 96. The second differs in some respects.

38. *Thalassoica antarctica* (Gm.), 1789. Antarctic Petrel.

This is an inadequate version of Forster's f. 95 which is a fine piece of work.

39. *Pagodroma nivea* (Forster), 1777. Snow Petrel.

This is not Forster's work ; there are two studies of this bird by him, ff. 89, 90. See also f. 53 below.

40. *Halobaena caerulea* (Gm.), 1789. Blue Petrel.

A copy of Forster's f. 86.

41. *Pachyptila vittata* (Forster), 1777. Broad-billed Whale Bird.

A copy of Forster's f. 87, lacking the little additional sketch of the head in the original.

42. *Fulmarus glacialisoides* (Smith), 1840. Silver-grey Petrel.

A fair copy of Forster's f. 91.

43. *Diomedea exulans* Linn., 1758. Wandering Albatross.

A fair copy of Forster's f. 99.

44. *Sterna fuscata* Linn., 1766. Wideawake or Sooty Tern.

This appears to be identical with P.R. 21.

Forster, f. 110.

45. *Sterna sumatrana* Raffles, 1822. Black-naped Tern.

A painting of an immature bird.

46. *Sula leucogaster plotus* Forster, 1844. Australian Brown Gannet or Booby.

This appears to be identical with P.R. 16 ; the background was washed in first so that the horizon shows through the white breast in both paintings.

Forster, f. 108.

47. *Phalacrocorax punctatus* (Sparrm.), 1786. Spotted Shag or Parekareka of New Zealand.

This is a close copy of M.E. 22 and differs from P.R. 14 in only one or two insignificant details.

Forster, f. 103.

48. *Phalacrocorax magellanicus* (Gm.), 1789. Magellanic or Rock Shag of Terra del Fuego.

A close copy of M.E. 21. The horizon line cuts through the white breast of the bird in both cases.

49. *Phoebastria palpebrata* (Forst.), 1785. Light-mantled Sooty Albatross.

A good copy of Forster's f. 102.

50. *Pygoscelis antarctica* (Forster), 1781. Bearded Penguin.

A fair copy of Forster's f. 82.

51. *Chionis alba* (Gm.), 1789. Sheath-bill from Statenland.

A close copy of M.E. 31. The staining or discoloration in both plates is so similar that one can only conclude that they were made at one time and the same paint used for both.

Forster, f. 125.

52. *Theristicus caudatus melanopis* (Gm.), 1789. Black-faced Ibis.

The other drawings of this ibis are discussed in the notes on P.R. 15.

53. *Pagodroma nivea* (Forster), 1777. Snow Petrel.

A fair copy of Forster's f. 89. See also his f. 90, and f. 39 above.

9. BIRDS PAINTED BY WILLIAM ELLIS
ON COOK'S THIRD VOYAGE, 1776-78

Paintings by William Ellis (90) in a Volume of His Unpublished Drawings in Brit. Mus. (Nat. Hist.) Zoology Library, ff. 7-96.

Ellis's plates are water-colour drawings of considerable charm and delicacy. In many cases he included accurate life-size pen and ink sketches of the head which has helped in identifying the species.

7. *Falco peregrinus* (? *japonensis* Gm.), 1788. Siberian Peregrine Falcon.

Signed painting. "W. W. Ellis ad. viv. delint. et pinxt. 1779. Flew on board off Japan." (Al.) "Oriental Falcon Lath. p.34 n. 7c".

Since these peregrine falcons vary according to age and sex, and from one part of their range to another, it is difficult to identify this drawing with certainty. The bird depicted does not altogether agree with Latham's description (1781: 33-34*) of the "Japanese Hawk" that flew on board off the coast of Japan but the narrow moustachial stripe, the spots on the upper surface of the tail and the general colouring show less resemblance to *F. peregrinus pealei* Ridgway, 1873 than to the British Museum skins of *F. p. harterti* Buturlin, 1907 which, according to Friedmann (1950: 665) and Stresemann (1949: 253), should probably become a synonym of *F. peregrinus japonensis* Gm. It is curious that there is no reference to this bird in the official account of the voyage.

8. *Surnia ulula caparoch* (P. L. S. Müller), 1776. American Hawk Owl.

Unsigned painting. "Sandwich Sound, N.W. Coast of America." (D.) "W. Ellis." (Al.) "Strix funerea."

Sandwich Sound is now known as Prince William Sound, NE. of Kodiak Island. Sharpe correctly identified this bird as *S. ulula* (Linn.), 1758, with a reference to his own work (1875: 131) where he places *caparoch* Müller in the synonymy of *S. ulula*. Müller's description was based on Edward's pl. 62 (1747) which represented a bird from Hudson Bay, but Müller incorrectly gave Europe as the habitat.

Stresemann (1949: 250) considers that Ellis's painting represents Tengmalm's Owl, *Aegolius funereus richardsoni* (Bonaparte), 1838. It seems that he cannot

have had an opportunity of examining it himself since the transverse barring of the undersurface, the length and markings of the tail and the arrangement of the spots on the upper surface of the wing, as well as some other characters, show that it is quite a different species from *A. funereus*.

9. *Aplonis tabuensis tabuensis* (Gm.), 1788. Polynesian or Striped Starling.

Signed painting. "W. W. Ellis ad. viv. delint. et pinxt. 1778. The Friendly Isles." (Al.) "Lath. sup. 164-9."

Latham described this bird from a specimen in the Leverian Museum (1781 : 164).

10. *Kittacincla malabarica macroura* (Gm.), 1789. Shama.

Signed painting. "W. Ellis ad. viv : delint. et pinxt. 1780. Pulo Condore."

One of these Shammas was in the Leverian Museum.

11. *Prosopiea tabuensis tabuensis* (Gm.), 1788. Red-breasted Musk Parrot.

There is a pencil sketch of the head as well as the painting of the whole bird on this signed plate. "From Middleburgh." (D.) "W. Ellis." (Al.) "*Psittacus hysginus* Forster Lath. p.214 n. 16."

Sharpe thought that this bird from the Friendly Isles could not be *P. tabuensis* since it lacks the crescentic blue collar described and illustrated by Latham (1781 : 214) ; other specimens however, lack this character too, and it appears that the population on Eua (Middleburgh) is a hybrid one the origins of which are discussed in the notes on Forster's f. 42.

12. *Cyanoramphus novaehollandiae* (Sparrm.), 1787. Red-fronted Parrakeet or Kakariki.

Signed painting. "W. W. Ellis ad viv : delint : et pinxt : 1777. New Zealand." (Al.) "Latham p. 252-56 *Psittacus pacificus* Forster."

Forster, ff. 44-46 ; A.M. 2.

13. *Vini australis* (Gm.), 1788. Blue-crowned Lory.

Signed painting. "W. W. Ellis ad viv : delint : et pinxt : 1778. Friendly Isles." (Al.) "*P. euchloris* Forst. Latham p. 254-58."

Latham's description of this lory was based on a bird in the Leverian Museum.

14. *Vini peruviana* (P. L. S. Müller), 1776. Tahitian Blue Lory.

Signed painting. "Will : Ellis ad viv : delint : et pinxt : 1778 Otaheite." (Al.) "Latham p. 255-59 *Psitacus saphirinus* Forst."

For full notes on this bird see Parkinson, f. 9.

Forster, f. 49 ; M.E. 12 ; Webber, f. 140.

15. *Nestor meridionalis* (Gm.), 1788. Green Kaka.

Pencil sketch of the head as well as a painting of the whole bird. Unsigned. "New Zealand." (D.) W. Ellis. (Al.) "Latham p. 264-70. *Psitacus hypopolius* Forster."

Forster, f. 50 ; A.M. 1 ; P.R. 13.

16. *Platycercus caledonicus* (Gm.), 1788. Green Rosella, Green Parrot or Yellow-bellied Parrakeet.

Pen and ink sketch of the head as well as the painting of the whole bird. Signed. "W. Ellis ad vivum delint: et pinxt: 1777. Adventure Bay New Holland." (Al.) "*flavi-ventris*."

Latham saw this Tasmanian bird in Banks's collection; he erroneously stated (1781: 248-249) that it came from New Caledonia, and suggested that it was perhaps the female of *Eunymphicus cornutus* (Gm.), 1788 which is found only in that island and the Loyalty group; his mistake was perpetuated by Gmelin in his choice of the specific name.

17. *Dissemurus paradiseus* Greater Racket-tailed Drongo.

Unsigned pencil sketches, one of the entire bird, the other of a head only. "Princes Island and Pulo Condore." (D.) "W. Ellis."

Here is perhaps the place to quote a description of a drongo which occurs on a single sheet of Ellis's MS. notes on the plants and animals of Pulo Condore; this MS. is bound with these paintings.

"*Coracias*. C. atro-viridis, caudâ sub-forficatâ; pennis duabus exterioribus longissimis, medio denudatis apice intortis. Habitat in Insula Pulo-Condore.—Tota avis atro-viridis, rostro pedibusque exceptis, quibus nigris sunt. Alae subtus alba maculatae, et crissum.—Retrices 10. Nares pennis setaceis secumbentibus oblecta. Pennae frontis erectae."

The upper sketch of a bird with short rackets appears to represent *Dicrurus paradiseus platurus* Vieillot, 1817 from Princes Island, and the lower one, the subject of Ellis's notes, the head of *Dicrurus paradiseus hypoballus* Oberholser, 1926, from Pulo Condore. Stresemann considers (1950: 81) that one of these birds is *D. p. malayensis* (Blyth, 1859) which Vaurie (1949) places in the synonymy of *D. p. hypoballus*, but that the other is *D. p. formosus*. The large size of the crest in *formosus*, however, seems to preclude its being either of the birds figured by Ellis, whereas skins of *platurus* in the British Museum agree with the upper sketch. Ellis's note on the spots beneath the wing and on the under-tail coverts of the bird from Pulo Condore (i.e. *hypoballus*, the subject of the lower sketch) does not necessarily imply that this was an immature bird as some of these spots persist and are bright and distinct in birds that are adult. We are not altogether satisfied with Stresemann's identification of *D. p. formosus* with Latham's Tropic Crow, *Corvus tropicus* Gmelin, 1788, which was said to be a bird from Hawaii with no crest or rackets and with a rounded tail; its size and iridescent plumage, however, make it clear that it is not the Hawaiian Crow, *Corvus hawaiiensis* Peale, 1848.

18. *Lalage natka* (Gm.), 1788. Polynesian Triller, one of the cuckoo-shrikes.

Signed painting. "W. W. Ellis ad viv: delint: et pinxt: 1778." (D.) "9^{to}. Friendly Isles. Ellis." (Al.) "*T. pacificus* Lath.?"

This painting was identified by Sharpe as *Lalage pacifica* Gm., 1789, which was based on Latham's Pacific Thrush (1783: 38). Ellis's bird agrees with the description

except that Latham does not mention the white marks on the wing or the pale grey of the rump ; he does not say whether he had a specimen or a drawing. Stresemann (1950 : 73) considers that Latham's description refers to a female or a young bird, and that the male was described as *Lanius natka* by Gmelin (1788 : 309) from Pennant's Natka Shrike (1785 : 239).

Mathews (1930 : 548) thought that Gmelin's description was not applicable to any *Lalage* ; he makes no reference to Ellis's illustration. He was followed by Mayr & Ripley (1941 : 7-8) who suggest that, in the absence of the type, *L. pacifica* is now indeterminable. Skins of a new race described by them, *Lalage maculosa tabuensis* from Tonga, however, compare very favourably with Ellis's painting (Stresemann, *loc. cit.*) and there seems no doubt that Gmelin's *Lanius natka* (said to come from Natka, i.e. Nootka) was one of these birds. In a number of cases wrong localities were published for the birds and other animals brought back from these voyages.

19. *Colaptes cafer* (Gm.), 1788. North-western Flicker.

Signed painting. "W. Ellis ad viv : delt : et pinxt : 1778. King Georges' Sound." (Al.) "*Picus auratus*."

Latham described *C. cafer* as var. A of the Gold-winged Woodpecker (1782 : 599) from the Cape of Good Hope instead of the Bay of Good Hope which was the old name for the entrance to King George's or Nootka Sound. Gmelin therefore gave it a specific name suggesting South Africa as its home (Palmer, 1916).

Webber, f. 136.

20. *Picoides tridactylus fasciatus* Baird, 1870. Alaskan Three-toed Woodpecker.

Signed painting. "W. W. Ellis ad viv : delint : et pinxt : 1778. Norton Sound."

Picoides tridactylus tridactylus had been described from Europe by Linnaeus in 1758 and it was not until 1870 that the Alaskan birds were separated as a distinct race.

Webber, f. 138.

21. *Sitta europaea albifrons* Tacz., 1882. Northern Nuthatch.

Signed painting. "W. Ellis ad viv : delint : et pinxt : 1779. Kamtschatka. Pedibus ambulatoriis." (Al.) "*Sitta europaea*."

22. *Halcyon tuta* (Gm.), 1788. Latham's Respected Kingfisher.

Pen and ink sketch of the head as well as a signed painting of the whole bird. "W. W. Ellis ad viv : delint : et pinxt : 1777. Otaheitee."

Sharpe apparently considered that this was a painting of a kingfisher which he had named *Todirhamphus wiglesworthi* (1906 : 182, 201). His remarks on the synonymy of the species are a little confusing since he was not aware that Gmelin's description was based on Latham's account of a young bird which is olive green above whereas the adult, which was painted by Ellis, is a brilliant greenish-blue. The type is in the Rijksmuseum in Leiden, and must have been brought back from this voyage.

23. *Halcyon venerata ? youngi* (Sharpe), 1892. Venerated Kingfisher.

Unsigned painting. "Friendly and Society Isles. (Otaheiti-Errooro) (Ulietea-Tautoria)." (D.) "Ellis."

This pale bird is more like *H. venerata youngi* than *H. venerata venerata* Gm., 1788. Neither Forster nor Ellis remarked on the presence of the distinct varieties which occur in the islands of the Society group. Since *youngi* is thought to be confined to Moorea it is possible that Ellis's bird, which was collected at either Raiatea (Ulietea) or Tahiti, may have been taken there by the natives. I am grateful to Dr. Mayr for this suggestion; he tells me that he knows of several records of kingfishers having been moved about the islands in this way.

24. *Promerops cafer* (Linn.), 1766. Cape Sugar Bird.

Unsigned painting. "Cape of Good Hope." (D.) "W. Ellis."

25. *Prosthemadera novaeseelandiae* (Gm.), 1788. Tui or Parson-bird.

Unsigned painting. "New Zealand." (Al.) "*Certhia cinnamata* Forster."

The first illustration of this bird was published in 1776 by Peter Brown, a Dane who worked for Pennant; a comment on it has already been made, see Forster, f. 61.

M.E. 17, A.M. 20; P.R. 23, 63.

26. *Moho nobilis* (Merrem), 1786. Double-plumed Moho; the native name for this bird is in fact O-o.

There are two pen and ink drawings of the head in addition to the signed painting. "W. W. Ellis delint: et pinxt: ad viv: 1779. Sandwich Isles." (Al.) "Lath. 683-18."

Merrem (1784: 9) tells us that he described this species from a bird that was sent with a very fine collection of New Zealand works of art to the Göttingen Museum by King George of England, Elector of Hanover. He published its scientific name in the Latin translation of his book which appeared in 1786. In their interesting notes on the Moho, Wilson & Evans (1890-99) give an account of the use that was made of the yellow feathers in the cloaks of Hawaiian royalty. Ellis himself remarks (1783) that the feathers were used in fly flaps for people of high rank while the *hoi polloi* were obliged to employ cocks' feathers for the same purpose. This beautiful bird has apparently become extinct.

27. *Drepanis pacifica* (Gm.), 1788. Yellow-rumped Mamo.

Signed painting. "W. W. Ellis ad vivum delint: et pinxt: 1779."

Gmelin's description of the Mamo was based on Latham's account of a bird in the Leverian Museum. According to Rothschild (1907) there are specimens in Leyden and Vienna and four other museums. Living birds have not been seen since 1898 (Bryan & Greenway, 1944).

Webber, f. 129.

28. *Hemignathus obscurus* (Gm.), 1788. Hook-billed Green Creeper or Akialoa.

Signed painting. "W. W. Ellis ad viv: delint: et pinxt: 1779. Sandwich Isles. (Al.) "Lath. p.703 n.4."

The birds from which Latham drew up his account were in the Leverian Museum and at its final disposal one specimen was bought by Lord Derby and the other by Temminck.

Webber, f. 130.

29. *Vestiaria coccinea* (G. Forst.), 1780. Red Sickie-bill, Olokele or Iiwi; an adult female above and an immature bird below.

Signed painting. "W. W. Ellis ad viv: delint: et pinxt: 1779. Sandwich Isles."
(Al.) "Lath. p.704. n.5."

Bartholdi Lohmann, one of Cook's seamen, took four skins of this species to Cassel where Georg Forster saw and described them in the first volume of the *Göttingisches Magazin* which was largely devoted to travel.

Webber, f. 133.

30. *Himatione sanguinea* (Gm.), 1788. Crimson Creeper or Apapane.

Signed painting. "W. W. Ellis ad viv: delint: et pinxt: 1779. Sandwich Isles."
(Al.) "Lath. p.739. n.43."

It was described by Latham from a specimen in the Leverian Museum. According to Wilson & Evans (1890-99) there are many references to the Apapane and its sweet song in Hawaiian legends.

Webber, f. 132.

31. *Chlorodrepanis virens* (Gm.), 1788. Olive-green Creeper or Amakihi; the upper figure is a male and the lower a female.

Signed painting. "W. Ellis ad viv: delint: et pinxt: 1779. Sandwich Isles."

One of these birds was part of the Hawaiian collection in the Leverian Museum. Webber, f. 128.

32. *Selasphorus rufus* (Gm.), 1788. Rufous Humming Bird.

This charming painting was the upper part of a plate but some philistine cut it in half; the rest is f. 60 which is signed. "King George's Sound." (D.) "W. Ellis." (Al.) "*Trochilus*."

Latham described this as the Ruff-necked Humming Bird (1782: 785). He does not disclose the source of his information about this species.

33. *Clangula hyemalis* (Linn.), 1758. Long-tailed Duck.

A pen and ink sketch of the head as well as the painting; signed plate. "W. W. Ellis ad viv: delint: et pinxt: 1779. Kamtschatka." (Al.) "*Anas hyemalis*."

34. *Histrionicus histrionicus pacificus* W. S. Brooks, 1915. Harlequin Duck.

In this unsigned painting the legs and feet are uncoloured. "Kamtschatka." (D.) "W. Ellis." (Al.) "*Anas histrionica*."

Linnaeus described the nominate species of this duck from North America in 1758 but it was not until 1915 that the Pacific race was separated as a distinct one. Webber, f. 126.

35. *Polysticta stelleri* (Pallas), 1769. Steller's Eider.

Unsigned painting. "Kamtschatka." (D.) "W. Ellis." (Al.) "*Anas stelleri*."

36. *Mergus serrator* (Linn.), 1758. Red-breasted Merganser.

Unsigned painting. "Sandwich Sound. N.W. Coast of America." (D.) "W. Ellis." (Al.) "*Mergus serrator* Faemina."

37. *Lunda cirrhata* (Pall.), 1769. Tufted Puffin.

Signed painting. "W. Ellis ad vivum delint. et pinxit. 1778. Coast between Asia and America." (Al.) "*Alca cirrhata*."

38. *Aethia cristatella* (Pall.), 1769. Crested Auklet.

Painting of the top of the head in addition to one of the whole bird; signed. "W. Ellis ad vivum delint: et pinxit: 1778. Bird Island between Asia and America." (Al.) "*Alca cristatella*."

Bird Island is another name for St. Matthew Island between the Pribiloff group and Bering Straits. A skin from this expedition was in Bullock's Museum (1816: 42).

39. *Macronectes giganteus* (Gm.), 1789. Giant Petrel, Nellie or Bone-breaker.

Signed painting of the whole bird with a pen and ink sketch of the beak. "W. Ellis ad vivum delint: et pinxit: 1776. Island of Desolation." (Al.) "*Procellaria gigantea*."

The Island of Desolation was Cook's name for Kerguelen Land.

40. *Puffinus tenuirostris* (Temm.), 1835. Short-tailed Shearwater.

Signed painting. "W. W. Ellis ad—delint: et pinxit: Amongst the ice." (Al.) "between Asia and America."

The date and the word *vivum* have both been cut off, and the locality added in a hand very different from Ellis's. "Between Asia and America" was also written on the back of f. 41 in the same hand, and the fresh dark pencil suggests that it was written long after Ellis's note "amongst the ice." Sharpe (1906) considered that this painting was unidentifiable but Stresemann (1953: 371) considers that it represents *Puffinus tenuirostris* and we agree with him.

41. *Fulmarus glacialis rodgersii* Cassin, 1863. Pacific Fulmar; the light phase of the North Pacific race.

Signed painting. "W. W. Ellis ad viv: delint: et pinxit: 1779. Amongst the ice." (Al.) "Between America and Asia."

Sharpe (1906: 203) thought that this was a *Diomedea* sp. but Ellis was familiar with albatrosses and the bill in his drawing is clearly that of a petrel. Mathews (1912-13: 124) believed it to be a good representation of the Grey Petrel or Pediunker *Adamastor cinereus* Gm., 1789 but it is unlikely that that petrel of the southern oceans should have been found in Bering Straits, and in any case the painting closely resembles the Pacific Fulmar.

42. *Fulmarus glacialis rogersii* Cassin, 1863. Pacific Fulmar; the dark phase of the north Pacific race.

Signed painting. "W. W. Ellis ad viv: delin - - - et pinxt: 1779. Amongst the ice."

Sharpe thought that this was *Macronectes giganteus* (f. 39) a petrel confined to the southern oceans, and seldom recorded north of the Tropic of Cancer, save once on the west coast of America. However, although in this painting the bill is rather massive and not well proportioned the details of the lower mandible are typical of the Pacific Fulmar and not of *Macronectes*, the bill of which was accurately drawn by Ellis in f. 39.

43. *?Pachyptila belcheri* (Math.), 1912. Slender-billed Whale-bird.

A pen and ink sketch at the bottom of the plate possibly represents another species. Signed plate. "W. W. Ellis ad viv: delint: et pinxt: 1776. Island of Desolation." (Al.) "*Pro. desolata*." [Pl. 37b.]

The slender structure of the beak and the distance between the nostrils and the nail suggest that Ellis's painting of the whole bird may represent *belcheri* and not *Pachyptila desolata* (Gmelin), 1789 as Sharpe thought (1906). It seems to have been Ellis's usual practice to make his detailed sketches life-size and in the pen and ink one of the head (below the painting) the bill itself is too small to be that of any prion other than *Pachyptila turtur* (Kuhl), 1820, while the distance between the nostrils and the nail of the beak is much less in proportion than in the painting, a character again suggesting *turtur* rather than *belcheri*. There is, however, no drawing from the dorsal aspect, and according to Falla (1940) only the *crassirostris* forms of the *P. turtur* assemblage occur at Kerguelen Land. Since but one skin of *P. crassirostris* exists in the British Museum, this plate of Ellis's has been reproduced in the hope that someone more familiar with the prions than is the writer may be able to form an opinion about its identity.

Parkinson, f. 15.

44. *Diomedea exulans* Linn., 1758. Wandering Albatross.

A pen and ink sketch of the bill at the bottom of the plate; unsigned. "Albatross, —at sea between Van Diemens Land and New Zealand." (D.) "W. Ellis." (Al.) "*Diomedea exulans*."

Parkinson, f. 25; Forster, f. 99; A.M. 43.

45. *Eudyptes crestatus filholi* (Hutton), 1879. Rockhopper Penguin.

Signed plate. Ellis painted two birds and made a pencil sketch of the head of the one with the more conspicuous crest. "W. Ellis ad vivum delint: & pinxit: 1776 Kerguelen's Land. Island of Desolation." (Al.) "*Aptenodytes chrysocoma* Forster."

Since in all the figures the superciliary streak, from which the tufts of the crest arise, begins only slightly in front of the eye, there seems to be little doubt that *filholi* is the race depicted.

46. *Aptenodytes patagonicus* J. F. Miller, 1778. King Penguin.

Unsigned painting, with a pen and ink sketch of the head and a small one of the foot. "Kerguelens Land. Island of Desolation." (D.) "W. Ellis." (Al.) "*Aptenodytes patagonica (hyperrhina)* Forster."

King Penguins have been divided into two races but Murphy doubts whether these are admissable (1936 : 354).

Webber, f. 124 ; Forster, f. 81 ; P.R. 9.

47. *Sula dactylatra personata* Gould, 1846. Australian Masked Gannet.

A large signed painting of the head and a small one of the bird in flight. "W. W. Ellis ad vivum delt : & pinxt : 1777. Turtle Island."

Turtle Island is another name for Christmas Island in the Line Islands. A different Turtle Island, west of Tonga, was visited on Cook's second voyage, in July 1774. Forster, f. 107.

48. *Phaëton rubricauda melanorhynchos* Gm., 1789. Red-tailed Tropic Bird.

Painting of an adult and an egg, with a pen and ink sketch of the head. "W. Ellis ad vivum delt : & pinxit. 1777. Palmerston Island."

Parkinson, f. 31 ; Solander MS. Z4 : 29-30.

49. *Cepphus columba columba* Pall., 1811. Pigeon Guillemot.

"W. Ellis ad vivum del & pinxt. 1778. Unalashka." (D.) "W. Ellis." (Al.) "*Colymbus grylle*."

This is the Pacific representative of the Black Guillemot of the North Atlantic Ocean.

50. *Uria lomvia arra* (Pall.), 1811. Pallas's Murre or Guillemot.

Signed painting. "W. Ellis ad vivum delint : et pinxt. 1778. Unalashka." (D.) "W. Ellis." (Al.) "*Colymbus troile*."

51. *Rissa tridactyla pollicaris* Ridgway, 1884. The Pacific Kittiwake.

Signed painting, with a pen and ink sketch of the head. "W. Ellis ad vivum delint : et pinxt : 1778. Kamtschatka." (Al.) "*Larus tridactylus* L."

Var. 2 of Latham's Tarrock Gull (1785 : 383) is this kittiwake. The European race was mentioned by Solander, MS. Z4 : 37.

52. *Larus ? marinus schistisagus* Stejneger, 1884. The Slaty-backed Gull.

Signed painting with a pen and ink sketch of the head. "W. W. Ellis ad viv : delt : et pinxt : 1779. Kamtschatka." (Al.) "*Larus canus* L."

Sharpe stated (1906) "apparently *Larus vegae*," i.e. one of the Herring Gulls, but it seems rather too dark and we are inclined to think that Stresemann (1953 : 371) is right in suggesting that it may be the Slaty-backed Gull. On the other hand Ellis's sketch of the head is small for a representation of *schistisagus* and is closer in this respect to *Larus argentatus vegae* Palmén. Both birds occur at Kamtschatka.

53. *Anous stolidus pileatus* (Scop.), 1786. Common Noddy.

Unsigned painting with a pencil sketch of the head. "Palmerston Island." (D.) "W. Ellis." (Al.) "*Sterna stolida*."

54. *Sterna vittata vittata* Gm., 1789. Wreathed or Swallow-tailed Tern.

Coloured plate, signed, with pen and ink sketch of the head. "W. W. Ellis ad viv : delint : et pinxt : 1776. Isle of Desolation."

In Latham's account of this bird, which he saw in Banks's collection (1785 : 359), he states that it comes from Christmas Island, a misprint for Christmas Harbour, Kerguelen Land, as Saunders pointed out (1896 : 51).

55. *Sterna fuscata* Linn., 1766. Sooty Tern or Wideawake.

Signed painting, with a pen and ink sketch of the head. "W. W. Ellis ad viv : delint : et pinxt : 1778. Turtle Island." (Al.) "*Sterna serrata* Forst."

Turtle Island in this case is another name for Christmas Island (see f. 47).

Webber, f. 122 ; Forster, f. 110 ; A.M. 44 ; P.R. 21.

56. *Gygis alba candida* (Gm.), 1789. White Tern.

Signed painting. "W. W. Ellis ad viv : delint : et pinxt : 1778. Turtle Isle."

This bird was taken at Christmas Island ; a specimen from there was in the Leverian Museum (Latham, 1785 : 363).

Parkinson, f. 33.

- *57. *Sterna striata* Gm., 1789. White-fronted Tern.

Signed painting, with a pen and ink sketch of the head. "W. W. Ellis ad viv : delint : et pinxt : 1777. At sea between New Zealand and Mo-dieu. At sea between New Zealand and Whatdue." (Al.) "Latham. t. 98. *S. striata* Gm."

Whatdue or Mo-dieu are phonetic equivalents for Atiu or Wateco in the Cook group, visited by Cook at the beginning of April 1777. Gmelin's description was derived from this drawing in Banks's collection, which therefore becomes the type. It was published by Latham (1785 : pl. 98).

58. *Demigretta sacra* (Gm.), 1789. Reef Heron, white phase.

Unsigned painting, with pen and ink sketch of the head. "At the Friendly Islands." (D.) "W. Ellis."

There were two of these birds in Banks's collection according to Latham.

Forster, f. 114 ; Webber, f. 118.

59. *Chionis minor* (Hartlaub), 1841. Lesser Sheath-bill.

Signed painting, with a pen and ink sketch of the head. "W. Ellis ad vivum delint : et pin . . . 1776. Kerguelens Land. Isle of Desolation."

For notes on this bird see Webber, f. 111.

60. *Erolia minutilla* (Vieillot), 1819. Least Sandpiper.

There is a pen and ink sketch of a head on this signed plate which is the lower half of no. 32. "W. Ellis ad vivum delint : et pinxit. 1778." "King Georges Sound."

Sharpe thought that the painting probably represented the Least Sandpiper and we agree with him. The pen and ink sketch of the head however is of another bird, the Semipalmated Sandpiper *Ereunetes pusillus* (Linn.) ; the two species are often

confused. We are much indebted to Dr. A. Wetmore for kindly identifying these two drawings.

61. *Erolia alpina pacifica* (Coues), 1862. American Dunlin or Red-backed Sandpiper.

Signed painting, with pen and ink sketch of the head. "W. W. Ellis ad viv. delint: et pinxt: 1778. King George's Sound."

62. *Aphriza virgata* (Gm.), 1789. Surf Bird.

Signed painting, with pen and ink sketch of the head. "W. W. Ellis ad viv: delint: et pinxt: 1778. King Georges Sound." (Al.) "*Tringa Borealis*."

Although Sharpe correctly identified the Surf Bird of f. 66 he mistook this one for the Wandering Tattler, *Heteroscelus incanans* (Gm.), 1789. The painting is, however, a fair representation of *A. virgata* in winter plumage, and the detailed sketch of the beak shows clearly that it could not have been intended for that of *H. incanans*. Stresemann (1949: 249) has followed Sharpe's identification. Latham called this the Boreal Sandpiper, and says "size uncertain" (1785: 181); it would seem, therefore, that he cannot have examined a specimen, and that his description was based on this painting with which it agrees except for his statement that the legs are deep brown; in the painting they are a greenish-grey. He seems to have examined specimens in summer plumage but believed them to be another species which he called the Streaked Sandpiper (see f. 66).

Webber, f. 113.

63. *Lobipes lobatus* (Linn.), 1758. Red-necked or Northern Phalarope.

Signed painting. "W. Ellis ad vivum delint: et pinxt: 1778. Between Asia and America."

Pennant (1785: 494-495) describes the Red-necked and Grey Phalaropes as the male and female of what he calls the "*Red Phalarope*", "found by the navigators between Asia and America", but he was aware that Linnaeus regarded them as two species. His account of the Grey Phalarope *Phalaropus fulicarius* Linn., 1758, seems to refer to an immature bird or one in winter plumage.

Latham (1785: 272) states that his plate (the frontispiece of that volume) represents a bird in Banks's collection, which he describes as Var. A of the Red Phalarope, from Lat. 66-69° N. between Asia and America; the bird he depicts is similar to the one painted by Ellis, except that it is standing on land instead of swimming.

Stresemann (1949: 252) suggests that Ellis's painting represents *Phalaropus fulicarius* but the chestnut patch on the sides of the neck and the white underparts show that this cannot be so.

64. *Aechmorrhynchus cancellatus* (Gm.), 1789. Christmas Island Sandpiper.

Signed painting. "W. W. Ellis ad viv: delint: et pinxt: 1778. Christmas Isle."

Latham apparently saw a specimen of this sandpiper in Banks's collection since he states that it was $7\frac{1}{2}$ inches long (1785: 274), a measurement which agrees neither with Ellis's drawing nor with Anderson's MS. description. For long this species

was regarded as extinct as it was known only from Ellis's drawing, but it was re-discovered in the Tuamotu Archipelago by Peale (1848 : 235) in 1839. Townsend & Wetmore (1919 : 182) discussed four specimens from the Tuamotu group in which the throat and abdomen were unmarked ; they considered that these belonged to the species Peale had named *Tringa* [= *Aechmorhynchus*] *parvirostris*. In Ellis's bird there is some barring of the underparts and it occurs also in all the five skins, collected by Beck, in the British Museum although it varies in extent. Lowe (1927) thought that there was insufficient ground for separating the species and that therefore *parvirostris* should be regarded as a synonym of *cancellatus*.

Sharpe identified the painting as the Wood Sandpiper, *Tringa glareola* Linn., 1758.

65. *Prosobonia leucoptera* (Gm.), 1789. Latham's White-winged Sandpiper.

Unsigned painting. "*Tringa pyrrhetraea* Forster. Te-Te. Eimeo or York Isle." (D.) "W. Ellis." (Al.) "*Prosobonia ellisi* Sharpe." The last remark is in the handwriting of either Sharpe or Chubb.

Latham (1785 : 172, pl. 82) remarks "This bird varies. In one specimen which came under my view the crown of the head was dusky, the line over the eye ferruginous, and a tinge of the same was visible throughout the whole of the plumage". Latham's plate differs from Ellis's in having only one white patch on the wing ; Webber shows two, and so does Forster though they are wider apart in his painting than in Ellis's or Webbers' ; Forster's bird came from Tahiti, nine miles distant from Eimeo, and it had a white spot above the eye which is not visible in the other paintings. J. R. Forster noted asymmetry of marking in the specimen he described (1844 : 174). The only remaining skin is now in the Leiden Museum.

A later plate is that by Lodge in Rothschild's *Extinct Birds*. It is a charming picture but not a good representation of the bird portrayed by Cook's artists.

Forster, f. 120 ; Webber, pl. 116.

66. *Aphriza virgata* (Gm.), 1789. Surf Bird.

Unsigned painting of a bird in summer plumage. "Sandwich Sound." (D.) "W. Ellis." (Al.) "*Tringa virgata*."

Latham called this the Streaked Sandpiper and noted that it was the size of the Common Snipe (1785 : 180). See notes on f. 62 which represents a bird of this species in winter plumage.

Webber, pl. 113.

67. *Charadrius rubricollis* Gm., 1789. Hooded Dotterel of Tasmania.

Signed painting. "W. Ellis ad vivum delint : et pinxit : 1777. Adventure Bay."

Ellis's bird has a large white spot on either side of the neck, which appears to correspond with the "large chestnut spot, the size of a silver penny, almost meeting together at the back part" which Latham describes on the neck of his Red-necked Plover (1785 : 212), the basis of Gmelin's *C. rubricollis*. Mathews (1913 : 131) suggests that Latham confused his notes on this bird with those on the Red-necked Phalarope. Gmelin's description was not recognized for many years and Vieillot's

name of *C. cucullatus*, 1818 was accepted for the Hooded Dotterel; Peters (1934) has, however, reverted to Gmelin's name and, it is therefore used here. Latham probably used this drawing since he gives the colours of the soft parts, but he may have had a specimen also.

68. *Pluvialis dominica fulva* (Gm.), 1789. Asiatic Golden Plover.

Signed painting, with pen and ink sketch of the head. "W. W. Ellis ad viv: delint: et pinxt: 1778. Christmas Isle."

Forster, ff. 123, 124.

69. *Gallinula chloropus sandvicensis* Streets, 1877. Hawaiian Gallinule or Alae.

Unsigned painting. "Sandwich Isles." (D.) "W. Ellis."

The bright red frontal shield in this bird was associated in Hawaiian legend with the discovery of fire (Wilson & Evans 1890-99: 163).

70. *Pennula sandwichensis* (Gm.), 1789. Sandwich Rail.

Signed plate. "W. W. Ellis ad viv: delint: et pinxt: 1779. Sandwich Isles."

Gmelin based his name on Latham's description of the Sandwich Rail (1785: 236) in Banks's collection. There are apparently only two specimens of this bird in existence, one in Leiden and another in Vienna ([Stresemann] 1957). The synonymy has been fully discussed by Rothschild (1900: 239-244); he suggests that Latham's Dusky Rail, if it really came from Hawaii, is synonymous with the Sandwich Rail. Ellis's plate was reproduced by Wilson & Evans (1890-99: 175).

71. ? *Gallicolumba erythroptera* (Gm.), 1789. Latham's Garnet-winged Pigeon.

Signed painting, with a pen and ink sketch of the head. "W. W. Ellis ad viv. delint: et pinxt. 1777. York Isle or Eimeo, Oo-oo-widou." (Al.) "*Columba pectoralis*."

Latham had at least three birds on which to base his description of this pigeon and its varieties (1783: 624-625). The curious thing about Ellis's bird is that the whole of the undersurface is white and it is now impossible to decide whether he actually made a mistake (possibly through finishing the painting from memory), or whether there was indeed at that time a variety of this ground dove with a white breast and abdomen. Sharpe (1906) suggests that Latham's type from the Leverian Museum was probably the actual type figured by Ellis but this seems scarcely likely as Latham says "the back between the wings, the quills, tail, lower part of the breast, belly, and vent are all black". Notes on the rarity of the species are given under Forster's f. 136.

Parkinson, f. 35; M.E. 30.

72. ? *Ducula pacifica pacifica* (Gm.), 1789. Pacific Pigeon.

Signed painting. "W. W. Ellis ad viv: delint: et pinxt: 1778. Friendly Isles." (Al.) "*C. pacifica* Gm."

Typical members of this species have ferruginous under-tail coverts, and the under-surface of the breast and abdomen is washed with light brown or a vinaceous colour.

These hues are clearly shown in Forster's painting, f. 139, and Latham (3:187 629) described the bird as the "Ferruginous-vented Pigeon" but Ellis drew it in such a way that the under-tail coverts do not show at all, and painted the breast and abdomen pale grey with no tinge of brown.

The genus *Ducula* was partly revised by Amadon (1943), and there are some interesting comments on variation in this genus by Mayr (1931) who points out that even in identical localities individuals differ much more than is generally realized.

A.M. 11.

73. *Creadion carunculatus* (Gm.), 1789. New Zealand Saddleback or Tieke.

Signed painting with pen and ink sketch of the head. "W. W. Ellis ad vivum delint : et pinxt : 1777 ; New Zealand." (Al.) "*Sturnus carunculatus* Forster."

Forster, pl. 144 ; M.E. 7 ; A.M. 19.

74. (1) *Ixoreus naevius* (Gm.), 1789. Varied Thrush (upper figure).

Signed painting. "W. Ellis ad vivum delint : & pinxt : 1778. King Georges Sound." (Al.) "*T. naevius*."

This thrush was figured by Pennant (1785 : pl. 15), but his plate was not copied from Ellis's.

- (2) *Turdus migratorius* Linn., 1766. American Robin (lower figure).

(Al.) "*Turdus migratorius*."

Latham thought that this bird was the female of *I. naevius* (1783 : 27) although he had already described both sexes of *T. migratorius* from the eastern coast of North America (loc. cit. : 26).

75. *Luscinia calliope camtschatkensis* (Gm.), 1789. Greater Kamchatka Nightingale or Siberian Ruby-throated Robin.

Signed painting. "W. Ellis ad viv : delint : et pinxt : 1779. Kamtschatka."

Latham named the Kamtschatka Thrush from a specimen in the Leverian Museum (1783 : 28) and two years later this account was quoted by Pennant in the *Arctic Zoology* (2 : 343).

76. *Conopoderas caffa caffa* (Sparrm.), 1786. Tahitian Reed-warbler.

Signed painting, with pencil sketch of the head. "Otaheite." Ellis also wrote "Eimeo" on the front of the painting ; this was crossed out but on the back, in his hand, is "Eimeo or York Island." (D.) "W. Ellis." (Al.) "*Turdus longirostris*."

Ellis's bird is dull in colour and appears to be the form still to be found at Tahiti. Murphy & Mathews (1928, 1929) discuss a brown phase in this species which they think may not be a matter of age ; it is possible that Ellis's bird was assuming the colour of this brown phase. For further notes see Forster, f. 55 ; M.E. 8 ; A.M. 28 ; and Webber, f. 139.

77. *Phaeornis obscura* (Gm.), 1789. Hawaiian Thrush.

Signed painting with pen and ink sketch of the head. "W. W. Ellis ad viv: delint: et pinxt: 1779. Sandwich Isles." (Al.) "*Turdus sandwichensis*."

Gmelin based his name on Latham's account of a specimen in the Leverian Museum. Wilson & Evans (1890-99) say that the commonest native name for it is the Omau and that its sweet song "fairly entitles it to be called the Hawaiian Nightingale".

78. *Coracina novaehollandiae* (Gm.), 1789. The Black-faced Cuckoo-shrike.

Signed painting with pen and ink sketch of the head. "W. W. Ellis ad viv: delt: et pinxt: 1777: Adventure Bay, Van diemens Land."

Latham thought that this bird was a thrush and was followed by Gmelin whose description was for many years not recognized as applying to a cuckoo-shrike. The synonymy has been fully discussed, with reference to this painting, by Mathews (1921: 113).

79. *Psittirostra psittacea* (Gm.), 1789. Ou.

Signed painting with pen and ink sketch of the head. "W. W. Ellis ad viv: delt: et pinxt: 1779. Sandwich Isles."

Latham's name for the Ou was the Parrot-billed Grosbeak (1783: 108, pl. 42); he refers to a male and a female in the Leverian Museum.

80. *Calcarius lapponicus alascensis* Ridgway, 1898. Alaska Longspur.

Signed painting. "W. W. Ellis ad viv: delint: et pinxt: 1778. Unalashka."

The nominate species of this bunting was described by Linnaeus in 1758 but the Alaskan form was not separated until Ridgway described it in 1898.

81. *Zonotrichia atricapilla* (Gm.) 1789 (= *Z. coronata* (Pallas), 1811). Golden-crowned Sparrow.

Signed painting. "W. Ellis ad vivum delint: & pinxt: 1778. Sandwich Sound."

The sexes are alike in this species. Stresemann suggests (1953: 371) that the reference to the supposed female in Cook & King (1784, 2: 378) applies to a Fox Sparrow, *Passerella iliaca unalashkensis* (Gm., 1789), and that the type locality of that bird is therefore erroneous. There seems no reason however why the latter species should not have been collected both at Unalaska and at Prince William (i.e. Sandwich) Sound since according to Swarth (1920: 127, 129) an adult male was collected at "Ounalaska" in 1894. Latham (1783: 202) had long since stated that a specimen was collected at Aoonalaska. The "female" referred to by Stresemann is described in Cook & King in their account of animals collected at Prince William's Sound not Nootka Sound.

82. *Passerculus sandwichensis sandwichensis* (Gm.), 1789. Aleutian Savannah Sparrow.

Signed painting with nest and eggs. "W. Ellis ad vivum delint: & pinxt: 1778. Sandwich Sound of Unalashka."

Sharpe (1906) thought that this was the female of *Zonotrichia coronata* Pall., but Stresemann has already pointed out (1949: 250) that it represents the above

species. Ellis's plate agrees with the skins in the British Museum save that in these the tail feathers are dark with pale edges while in Ellis's bird they are pale with dark edges. There was a specimen in Banks's collection.

83. *Leucosticte brunneonucha* (Brandt), 1842. Japanese Snow-finch.

Signed painting. "W. W. Ellis ad viv: delint: et pinxt: 1779. Off the Coast of Japan."

Webber, f. 109.

84. *Fringilla montifringilla* Linn., 1758. Female Brambling.

Signed painting with a partly coloured sketch of an outstretched wing. "W. W. Ellis ad viv: delint: et pinxt: 1779. Off the Coast of Japan."

85. *Loxops coccinea coccinea* (Gm.), 1789. Scarlet Akakane.

A finished and signed painting of one bird on a branch and a delicate pen and ink sketch of another on the ground. "W. W. Ellis ad viv: delint: 1779. Sandwich Isles."

Gmelin's description of this bird was based on Latham's account of a bird in the Leverian Museum. Wilson & Evans (1890-99) reported that the Scarlet Akakane was very scarce when they were in Hawaii, and Bryan & Greenway (1944) say that it has not been recorded since 1893.

86. *Petroica macrocephala* (Gm., 1789). Yellow-breasted Tit or Ngiru-ngiru.

Signed painting. "W. W. Ellis ad vivum delt: et pinxt: 1777. New Zealand." (Al.) "cf. *Turdus minutus* Forster."

Sharpe thought that this identification was wrong (1906: 207) and suggested that Ellis's drawing was more like *P. toi-toi* (Garn.). The latter is, however, a bird found only in the North Island of New Zealand where there was no collecting on the third voyage. Ellis's bird is badly drawn and the colour on the breast seems to have darkened with age but the pattern on the tail feathers is diagnostic. Forster's representation (f. 149) of this bird is more accurate. Latham's plate of the species was taken from a bird in Banks's collection (1783: pl. 55).

87. *Chasiempis sandwichensis* (Gm.), 1789. Hawaiian Flycatcher or Elepaio; a young bird.

Signed painting, with a pen and ink sketch of the head. "W. W. Ellis ad viv: delint: et pinxt: 1779. Sandwich Isles."

Apparently two of these birds were brought back to England, an immature one in Banks's collection, which Latham called the Sandwich Flycatcher, and an adult bird in the Leverian Museum, which Latham called the Spotted-winged Flycatcher and Gmelin described as *Muscicapa maculata*. Rothschild places the latter in the synonymy of *C. sandwichensis* (1893-1900, 2: 71) though Wilson & Evans give some grounds for uncertainty about this (1893-99: 126); there is doubt about the exact locality where the bird was collected.

88. *Wilsonia pusilla pileolata* (Pall.), 1811. Northern Pileolated Warbler.

Signed painting. "W. W. Ellis ad viv : delint : & pinxt : 1778. Between Asia and America."

It seems probable that this is *pileolata* ; Sharpe was reluctant to admit the validity of the various races into which the species has been divided (1906 : 207) but Hellmayr accepts them (1935 : 452-454).

89. *Luscinia svecica* Linn., 1758. Bluethroat.

"On the ice." (D.) "W. Ellis."

This is an excellent painting of a female Bluethroat.

90. *Oenanthe oenanthe* Linn., 1758. European Wheatear.

Signed painting. "W. W. Ellis ad viv : delint : 1778. On the Ice." (Al.) "Oenanthe ?"

Parkinson, f. 38 ; Solander MS. Z4 : 123.

91. *Motacilla flava* Linn., 1758. A Yellow Wagtail.

Signed painting. "W. W. Ellis ad viv : delint : et pinxt : 1778. Lat : 66° : 00' N. Caught on Board."

This is a young bird and its race is uncertain.

92. *Conopoderas aequinoctialis* (Lath.), 1790. Christmas Island Reed Warbler.

Signed painting. "W. W. Ellis ad viv : delint : et pinxt : 1778. Christmas Isle."

This bird was also figured by Webber, f. 107, whose painting differed from Ellis's in showing the bars on the tail ; these were mentioned by Anderson and referred to by Latham (1787 : 187) who based his account on Anderson's MS. notes.

Murphy & Mathews discuss the species (1929) and point out that there is some colour variation, apparently determined by wear. There are no adult skins of this bird in the British Museum. Mrs. Cooper, who was living on Christmas Island in 1953-54, tells me that the birds were still to be heard there then, though they were shy and seldom seen.

93. *Parus ater insularis* Hellmayr, 1902. Coal Tit (upper figure).

Parus major minor Temm. and Schl., 1848. Great Tit (lower figure).

Signed painting. "W. W. Ellis ad viv : delint : et pinxt : 1779. Coast of Japan." (Al.) "ater, major."

94. *Parus cinctus alascensis* (Prazak), 1895. Alaska Chickadee.

Signed painting. "W. W. Ellis ad viv : delint : et pinxt : 1778. Norton Sound."

Hellmayr points out (1934 : 77) that Norton Sound is a typical locality. Stresemann (1949 : 252) considers that this chickadee should be known as *Parus lathamii* Stephens, since Stephens based his description (1817 : 44-45) on the accounts by Latham and Pennant of a titmouse in the Leverian Museum which agrees with Ellis's plate and which Pennant says (1785 : 424) was found "as high as lat. 64° 30'

on the western side of North America". Stephens incorrectly stated that the forehead was white.

95. *Malurus cyaneus cyaneus* (Ellis), 1783. Superb Blue Wren.

Signed painting. "W. W. Ellis ad viv: delint: et pinxt: 1777. Adventure Bay."

Ellis very briefly described this Tasmanian wren (1783: 22).

96. *Collocalia spodiopygia townsendi* Oberholser, 1906.

Signed painting with pencil sketch of the head. "Friendly Isles." (D.) "W. Ellis."

Stresemann (1950: 74, 87) has pointed out that Gmelin's name of *Hirundo unalaschkensis* (1789: 1025), based on Latham's erroneous locality, is valid for this Tongan species but that it would cause confusion to revert to it.

10. BIRDS PAINTED BY JOHN WEBBER ON COOK'S THIRD VOYAGE

Paintings by John Webber (38) Contained in a Volume of His Unpublished Paintings in Brit. Mus. (Print Room) ff. 105-143.

The paintings of birds and fishes made by Webber on this voyage may have been part of a larger series that was broken up for some reason. Only three of these paintings have been lifted from their mounts and there may be additional remarks on the backs of the others.

105. *Parus cinctus alascensis* (Prazak), 1895. Alaska Chickadee.

"John Webber, 1778. Taken on the continent of the West Coast of America. Lat. 64°.30. Long. 198°.30. Sept. 1778."

Stresemann's suggestion that the name of this bird should be changed (Ellis, f. 94) has been adopted in the American Check-list of 1957, which was published after this paper went to press.

106. *Malurus cyaneus cyaneus* (Ellis), 1782. Superb Blue Wren.

"J. Webber, 1777. New Holland. Adventure Bay. Van Diemen's Land."

Cook called at Adventure Bay, Tasmania, in January 1777, but did not visit the mainland of Australia on this voyage.

Ellis, f. 95.

107. *Conopoderas aequinoctialis* (Lath.), 1790. Christmas Island Reed Warbler.

"John Webber f. 1777 Dec. 31.* Christmas or Turtle Isle."

Ellis, f. 92; Anderson's MS. notebook, p. 12.

108. *Loxops coccinea coccinea* (Gm.), 1789. Scarlet Akakane.

"Sandwich Isle." (D.) "J. Webber, Sandwich Isle."

Ellis, f. 85.

109. *Leucosticte brunneonucha* (Brandt), 1842. Japanese Snowfinch.

"J. Webber, del. 1778, Japan. Taken of the Island of Japan in lat. 40° N, 142° E."
(D.) "*Fringilla Linaria*."

Ellis, f. 83.

110. *Bombycilla garrulus pallidiceps* Reichenow, 1908. Bohemian Waxwing.

"J. Webber del., 1778. Taken on the continent of the West coast of America in Lat. 64-30 Long^{de}. 198.30. Sep^r. 1778.

111. *Chionis minor* Hartlaub, 1841. Lesser Sheath-bill.

"John Webber, f. 1777. The Island of Desolation."

The date should be 1776 as Cook left Kerguelen on 30th December of that year but Webber probably completed his drawing later. Although both species of Sheath-bill were taken on Cook's voyages they were confused in Latham's description and it was not until 1841 that the bird painted by both Ellis (f. 59) and Webber received its scientific name.

112. *Erolia acuminata* (Horsfield), 1821. Siberian Pectoral Sandpiper or Sharp-tailed Sandpiper.

"Jn^o. Webber del. 1778." Taken between - - - [Lat.] 69½ Long. 191-2."

113. *Aphriza virgata* (Gm.), 1789. Surf Bird.

"Jo/n Webber, del. 1778."

Ellis, ff. 62, 66.

114. *Phalaropus fulicarius* (Linn.), 1758. Grey or Red Phalarope.

There is a sketch of the beak and foot in the top left-hand corner. "Jo/n Webber del. 1778. Taken between Asia and America in Latitude 69½ Long. 191½ East. Sept. [?] 1778."

115. *Pluvialis dominica dominica* (P. L. S. Müller), 1776. American Golden Plover.

"John Webber delin. 1777. Sandwich Isles."

116. *Prosobonia leucoptera* (Gm.), 1789. White-winged Sandpiper.

"Te-te. Eimeo or York Island." (D.) "J. Webber. *Tringa pyrrhetraea* Forster."

This species is extinct and the only known specimen is in the Leiden Museum. Forster, f. 120, Ellis, f. 65.

117. *Heteroscelus incanus* (Gm.), 1789. Wandering Tattler.

"John Webber, 1777. Palmerston Island."

Latham called this bird an "Ash-coloured Snipe"; it was in Banks's collection.

118. *Demigretta sacra* (Gm.), 1789. Reef Heron, blue form.

"Society Isles." (D.) "J. Webber."

Forster, f. 114; Ellis, f. 58.

119. ? *Sterna* sp. A tern.

" John Webber delin., 1777. Christmas Isle."

This painting agrees very closely with a skin of *Sterna striata* Gm., 1789, in the British Museum, a specimen of which was taken between New Zealand and the Cook Islands and painted by Ellis, pl. 57, 1777. Hindwood (1946), however, who has gone very thoroughly into the question has been unable to find any reliable record of the species outside the Neozelanic region and considers that reported occurrences elsewhere are based on immature specimens of the Crested Tern *Thalasseus bergii cristatus* (Stephens), 1826.

120. *Procelsterna cerulea* (Bennett), 1840. Blue-grey Noddy.

" J. Webber del. 1778. Christmas Isle. Turtle Isle."

Stresemann (1950 : 78) considers that Latham's Southern Tern is in fact the Blue-grey Noddy, and that Bennett's name is therefore a synonym of *Procelsterna australis* (Gm.), 1789, which was represented in the Leverian Museum.

121. *Thalasseus bergii cristatus* (Stephens), 1826. Crested Tern.

" J. Webber del. 1777. Friendly Isles."

Latham saw a specimen in the British Museum.

122. *Sterna fuscata* ? subsp. Sooty Tern or Wideawake.

" John Webber del. Jan. 3, 1778. Christmas Isle, Turtle Island." (Al.) "*Sterna serrata* Forster."

Ellis also painted this bird (f. 55), but gave Turtle Isle as the locality. Cook called at two islands with this name, one in the Tonga group in 1774, and another (known generally as Christmas Island) in the Line Islands on this voyage. This is confirmed by the MS. map which is bound in with Anderson's bird paintings.

123. *Eudyptes chrysolophus* (Brandt), 1837. Macaroni Penguin.

" John Webber, ex Jan. 1777. Island of Desolation." (Al.) "*Aptenodytes chrysocoma* Forster."

Painted after leaving Kerguelen.

124. *Aptenodytes patagonicus* Miller, 1778. King Penguin.

" Island of Desolation." (D.) " J. Webber. *Aptenodytes patagonica* Forster."

No date or locality are given.

Ellis, f. 46 ; Forster, f. 81.

125. *Melanitta perspicillata* (Linn.), 1758. Surf Scoter.

" J. W., f. 1778. Coast of America." (D.) " J. Webber." (Al.) "*Anas perspicillata* L."

126. *Histrionicus histrionicus pacificus* W. S. Brooks, 1915. Pacific Harlequin Duck.

" John Webber del. 1778. That part of the body which is covered by the Wings is of a brownish colour resembling that over the eyes but rather darker. Duck of Analaska. Samanganouda Harbour. Isle of Aonashka." (D.) " J. Webber." (Al.) "*Anas histrionica*. Kamtschatka . . . "

Ellis, f. 34.

127. *Meliornis novae-hollandiae canescens* (Lath), 1790. Yellow-winged Honey-eater.
 "Adventure Bay, New Holland." (D.) "J. Webber."

Canescens is the Tasmanian race of this bird, and the skins in the British Museum agree with this painting. Latham's account was based on Anderson's notes.

128. *Chlorodrepanis virens* (Gm.), 1788. Latham's Olive-green Creeper, Amakihi.
 "Sandwich Isle^d." (D.) "J. Webber." (Al.) "Lath. 740, n.44."

A specimen was in the Leverian Museum.
 Ellis, f. 31.

129. *Drepanis pacifica* (Gm.), 1788. Yellow-rumped Mamo.
 "Sandwich Isle^d." (D.) "Webber." (Al.) "Lath. p. 703, no. 3."

The species apparently became extinct about the end of last century. A specimen was in the Leverian Museum.

Ellis, f. 27.

130. *Hemignathus obscurus* (Gm.), 1788. Hook-billed Green Creeper, Akialoa.
 "J/n^o. Webber, del. 1779, A kie-a-roa, Sandwich Isles, Owhy-hee." (Al.) "Lath., 703, n.4."

This species, too, was in the Leverian Museum.
 Ellis, f. 28.

131. *Moho nobilis* (Merrem), 1786. Yellow-tufted Bee-eater, Double-plumed Moho.
 "Hoo-hoo the name given by the natives, Sandwich Isles." (D.) "J. Webber."

King George of England, who was also Elector of Hanover, sent one of these birds with other curiosities to the Göttingen Museum and it was there that Merrem described it. It now appears to be extinct (Bryan & Greenway, 1944). A specimen was in the Leverian Museum.

Ellis, f. 26.

132. *Himatione sanguinea* (Gm.), 1788. Crimson Creeper, Akakane.
 "J. Webber del. 1779. Sandwich Isles, A ka-kan-ne." (D.) "Lath. p. 739 no. 43."

This bird and its sweet song were popular in Hawaiian legend. Latham saw one in the Leverian Museum.

Ellis, f. 30.

133. *Vestiaria coccinea* (G. Forster), 1780. Red Sickie-bill, Iiwi.
 "Jo/n Webber del, 1779. Sandwich Isles, He-ēē-vēē." (D.) "Lath. 704, no. 5."

This was in the Leverian Museum.
 Ellis, f. 29.

134. *Alcedo cristata cristata* Pallas, 1764. Malachite-crested Kingfisher, Cape of Good Hope.
 "Kingfisher of the Cape. Cape of Good Hope." (D.) "J. Webber."

135. *Halcyon venerata venerata* (Gm.), 1788. Latham's Venerated Kingfisher.

"Jo/n Webber ins. f. 1777. Society Isles."

Ellis, f. 23; Forster, f. 58.

136. *Colaptes cafer* (Gm.), 1788. North-western Flicker.

"King Georges Sound." (D.) "J. Webber, *Picus auratus*." (Al.) "America."

A skin from Vancouver Island in the British Museum shows the breast suffused with pink just as Webber has painted it. Latham says that two specimens were in the Leverian Museum (1782 : 599).

Ellis, f. 19.

137. *Sphyrapicus varius ruber* (Gm.), 1788. Reb-breasted Sapsucker.

"Jn. Webber del., 1778. King Georges Sound." (D.) "Lath. p. 561, n. 8. *Picus erythrocephalus* L."

This plate is of particular interest as it shows clearly that a whole specimen was taken on this voyage and is additional evidence for Swarth's conclusion on the type locality (1912 : 35-38). Latham did not see this drawing since he describes a specimen from Cayenne (*sic*!) with legs and tail missing (1782 : 563). He described the tail in 1787 (p. 106) and referred the bird tentatively to one described by Cook from Nootka Sound, which is confirmed by the note on this plate—King George's Sound being another name for Nootka Sound.

See also Stresemann 1949 : 249.

138. *Picoides tridactylus fasciatus* Baird, 1870. Alaskan Three-toed Woodpecker; male.

"Jo/n Webber, 1778. Taken on the continent of the west coast of America. Lat. 64.30 Long. 193.3. Sep^r. 1778. Norton Sound."

Ellis, f. 20.

139. *Conopoderas caffra longirostris* (Gm.), 1789. Long-billed Warbler.

"Morea, Otahaitie Eimeo or York Island." (D.) "W. Webber."

Latham refers to specimens from Eimeo or York Island (other names for Morea) which he saw in the Leverian Museum and in Banks's collection (1783 : 67).

Ellis, f. 76; Forster, pl. 55; M.E. 8; A.M. 28.

140. *Vini peruviana* (P. L. S. Müller), 1776. Otaheitan Blue Parrakeet.

"John Webber delin 1777. Parroquet of Tahaite." (D.) "Latham p.255, no.59. *Psittacus saphharinus* Forster." (Al.) "Loriquet of Otaheite."

Parkinson, f. 9; Ellis, f. 14; Forster, f. 49; M.E. 12.

141. *Buceros rhinoceros* Linn., 1758. Indian Hornbill, female.

Only the beak and skull are depicted. "Princes Island." (Al.) "This bird is black with a white tail Princes Isle Webber."

142. Missing.

143. *Pardalotus striatus striatus* (Gm.), 1789. Striated Pardalote.

"J. Webber. f. ins. 1777. New Holland, Adventure Bay."

Banks actually had a specimen, according to Latham (1787: 188) who does not mention this drawing but refers to Anderson's papers.

II. PAINTINGS BY PHILIP D'Auvergne and J. F. MILLER OF
BIRDS COLLECTED ON PHIPPS'S VOYAGE TOWARDS
THE NORTH POLE IN 1773

Paintings by D'Auvergne and Miller Contained in Brit. Mus. (Print Room) Vol. 199 B 4, ff. 2, 3, 6 and 74.*

2. *Carduelis flammea* (Linn.), 1758. Mealy Redpoll.

Unsigned painting. (B.) "D'Auvergne del. *Fringilla linaria*. Came on board his ship. Capt. Phipps." "Spitzbergen," also in Banks's hand, has been crossed out.

This bird is not mentioned amongst those listed in the appendix to the published account of Phipps's voyage (1774) so we do not know where it was taken.

3. *Fratercula arctica* (Linn.), 1758. Puffin.

Unsigned painting of a freshly decapitated head. (B.) "D'Auvergne del. *Alca arctica*. Capt. Phipps Spitzbergen." (Al.) "Sea Parrot, of Marten. shot in the N. of Spitzbergen. 1773."

As only the head of bird is shown and we do not know whether the drawing is life size, we cannot tell whether or not it represents the larger race found in that region.

6. *Plectrophenax nivalis* (Linn.), 1758. Snowbunting.

Unsigned painting of the adult male. (B.) "*Emberiza nivalis*. Capt. Phipps Spitzbergen 1773." (D.) "D'Auvergne."

In the appendix to the *Voyage* (pp. 188-189), Phipps notes that large flocks of these birds occur on the ice at Spitzbergen as well as on land, and he wonders what constitutes their food.

74. *Pagophila eburnea* (Phipps), 1774. Ivory Gull.

Signed painting. "John Frederick Miller. pinxt. 1773." (B.) "*Larus eburneus* Capt. Phipps Spitzbergen 1773."

Phipps gave a detailed description of this bird (*loc. cit.*: 187). Latham mentions a specimen in the Leverian Museum (1785: 377) which was probably the bird painted by Miller whose plate was reproduced in his *Various Subjects of Natural History*, pl. 12, 1776. The reproduction is a looking-glass copy and in neither this work nor in the later edition, the *Cimelia Physica* of 1796, is the colouring very accurate. The detail in the background has been reduced and altogether the published plates are poor in quality compared with the original painting.

12. BIRD PAINTINGS BY COLONEL GORDON ACQUIRED BY
FRANCIS MASSON AT THE CAPE OF GOOD HOPE, 1772-76

Paintings by Colonel Gorden (17) Contained in Brit. Mus. (Print Room) Vol. 199
B 4, ff. 35-57.*

- 35 *Fulica cristata* Gm., 1789. Red-knobbed Coot.

Unsigned painting. (B.) "Mr. Mason Cape of good hope 1773." (Al.) "*Fulica*."

- 36 *Francolinus capensis* (Gm.), 1789. Cape Pheasant or Francolin.

Unsigned painting. (B.) "Sent from the Cape of Good Hope to Sir John Pringle by Mr. Mason who gave it to me." (Al.) "called here Pheasant; inhabits coppices by the Sides of Rivers, and in marshes amongst the Reeds, digs up and eats the small bulbs of *Ixia's* *Gladiolus's* about the Size of a Poulet. Magnitudine *Gallina*."

37. *Pterocles namaqua* (Gm.), 1789. Namaqua Sand Grouse.

Unsigned painting. (B.) "*Tetrao fontana* mas The tail had been rubb'd off in a cage."

For notes on this species see f. 41.

38. *Pterocles namaqua* (Gm.), 1789. Namaqua Sand Grouse.

Unsigned painting. (B.) "*Tetrao fontana* foemina." (Al.) "a little too large."

See f. 41.

39. *Francolinus afer* Stephens, 1819. Grey-wing or Cape Partridge.

Unsigned painting. (B.) "*Tetrao*. Sent from the Cape of Good Hope to Sir John Pringle by Mr. Mason who gave it to me with a dried specimen. Common Cape Partridge." (Al.) "Magnitudine *T. perdix*."

Banks's specimen was described by Latham (1783 : 773) whose account was used by Stephens.

40. *Vidua macroura* (Pallas), 1764. Pin-tailed Whydah.

Unsigned painting. (B.) "Mr. Mason Cape of good hope 1775." (Al.) "*Emberiza vidua* L."

- *41. *Pterocles namaqua* (Gm.), 1789. Namaqua Sand Grouse. (Pl. 36a.)

Unsigned painting. (B.) "*Tetrao fontana* mas." (Al.) "Natural magnitude. Sent from the Cape of Good Hope to Sir John Pringle by Mr. Mason who gave it to me, with a dried specimen. Namaqua Partridge being generally found towards the Country of the Namaqua Hottentots, inhabiting the dry thirsty Deserts, are easily shot by watching near a fountain, where Sometimes (*sic*) 300 will come at once to drink/: Fountains being very rare in those Deserts. If it is a *Tetrao* it is remarkably different from its Congeners; making long flights like the *Columba*; Their note is different from the *Tetraones*. Feeds on Seeds of herbs; the one which I have stuffed, The Crope was full of the Seed of the *Salvia aethiopica*; eats also Corn."

Latham (1783 : 750) described this bird not from the specimen but from this drawing as his notes show, so that the drawing becomes the type. He writes "Less than a partridge: length nine inches. It is of that size and length in the drawing . . .

These inhabit the country of the Namaqua Hottentots, and in the day-time frequent the thirsty deserts; but are easily shot, by watching near the fountains . . . From the papers of Sir Joseph Banks." His notes are copied from those on the back of this drawing but he misquotes the locality; Gmelin's account is an abbreviated version (1789:754), and he perpetuated Latham's slip about the locality. Since it is clear from what we know of Masson's itinerary that he in fact went no further north than the Hantum country, about 350 miles north of the Cape of Good Hope, it is also clear that Namaqualand is not the type locality which should accordingly be changed to the most northerly desert country explored by Masson.

Ff. 37, 38.

42. *Casmerodius albus melanorhynchus* (Wagler), 1827. Great White Heron.

Unsigned painting. (B.) "Cape of Good Hope. Mr. Mason. 1775. *Ardea*."

43. *Himantopus himantopus* (Linn.), 1758. South African or Black-winged Stilt.

Unsigned painting. (B.) "*Charadrias*." (Al.) " $\frac{1}{2}$ magnitude. *Himantopus*? Sent from the Cape of Good Hope to Sir John Pringle by Mr. Mason, who gave it to me. Inhabits Marshes by Lakes, is very rare."

44. *Rostratula benghalensis* (Linn.), 1758. Painted Snipe.

Unsigned painting. (B.) "*Scolopax capensis*." (Al.) "Natural magnitude. Sent from the Cape of Good Hope to Sir John Pringle by Mr. Mason who gave it to me with a dried specimen. is but rare; the common Snipe here being the *S. gallinago*."

45. *Agapornis cana* (Gm.), 1788. Grey-headed Lovebird.

Unsigned painting. (B.) "Mr. Mason. Cape of good hope 1775. birds from Madagascar."

Forster, f. 51.

52. *Scopus umbretta bannermani* Grant, 1914. Greater Hammerkop.

Unsigned painting. (B.) "Cape of Good Hope *Rallus cristatus*. Umber Brown p. 90 t. 35 Pennant Gen. Av. N. 64."

There is a pencil sketch of the same bird on the back.

53. *Plegadis* sp. An unidentified ibis.

Unsigned painting of a bird with an orange beak, grey legs, a fully feathered head streaked with black and white which extends only a short distance down the neck, and with dark blackish-blue plumage. Banks called it "*Scolopax leucocephala*."

54. *Sagittarius serpentarius* (Miller), 1779. Secretary Bird.

Unsigned painting, very stylized. (B.) "Cape of Good Hope. *Falco grillarius*. *Falco sagittarius*."

Forster, f. 32.

55. *Dendrocygna viduata* (Linn.), 1766. White-faced Duck.

Unsigned painting. (B.) "*Anas Leucopus*. Cape of Good Hope." (Al.) "*Anas viduata*." Forster, f. 76.

56. *Bugeranus carunculatus* (Gm.), 1789. Wattled Crane.

Unsigned painting. (Al.) "Wattled Heron. Latham Syn. 3 p. 82 n. 49 tab. 78 from this drawing."

Forster, f. 115.

57. *Choriotis kori* (Burchell), 1822. Kori Bustard.

Unsigned painting. (B.) "*Otis cristata* Cape of Good Hope."

13. SOME MISCELLANEOUS BIRD PAINTINGS BOUND WITH SOME
OF THE ABOVE AND EXECUTED AT APPROXIMATELY
THE SAME PERIOD

Miscellaneous Bird Paintings (19) Contained in *Brit. Mus. (Print Room) Vol. 199**
B 4 ff. 49-130

(a) Two unsigned paintings from Mrs. Brant are so similar in style to those sent by Masson that one can scarcely avoid the conclusion that they are by the same hand. The legend beneath them (pls. 49, 58) is in a flowing hand and some of the letters and spellings are characteristically Dutch. There is a legend in a similar style beneath a painting of a jackal, pl. 50. A third painting by J. F. Miller of a bird she sent to Banks is included here for convenience.

49. *Porphyrio madagascariensis* (Lath.), 1801. Purple Gallinule.

Unsigned painting. (B.) "Sent from the Cape of Good Hope By Mrs. Brant 1772. *Fulica Porphyrio*." (Al.) "Riet Haantje Cape."

Latham makes no reference to this painting in his description.

58. *Tauraco corythaix* (Wagler), 1827. Knysna Lourie.

Unsigned painting. (B.) "Sent from the Cape of Good — By Mrs. Brant 1772. *Cuculus persa*." (Al.) "Loerie from the Cape."

75. *Goura cristata cristata* (Pallas), 1764. Crowned Pigeon.

Painting signed by J. F. Miller. "John Miller pinxt. 1772. *Columba coronata*." (B.) "Taken from a living Bird sent me from the Cape of Good hope by Mrs. Brant 1772."

Miller did not colour the tail in this painting of the Crowned Pigeon which comes from New Guinea, but he published a finished version of it in his *Various Subjects of Natural History* (pl. 16), giving the Cape of Good Hope as the habitat.

(b) Three bird paintings acquired by Banks from John Greenwood.

119. *Jacana spinosa jacana* (Linn.), 1766. Common Jacana.

Unsigned painting, unfinished.

Dryander ascribed this painting to Greenwood and gave Surinam as the locality. There is a heavy black margin round it which makes it impossible to read the writing on the back; these three drawings are pasted down.

- 119 (lower figure). *Capella paraguaiae* (Vieillot), 1816. Paraguayan Snipe.
Unsigned painting. (D.) "Greenwood."

127. *Colinus cristatus* Linn., 1766. Crested Quail.
Unsigned painting of two of these birds.

This may be the painting of the stuffed *Tetrao* ascribed by Dryander to Greenwood ; there is nothing to indicate the locality in his catalogue, nor on the painting.

(c) Nos. 61, 62, 63 and 64 are unsigned paintings by Gertrude Metz, a professional painter of considerable ability who was working and exhibiting in London in the latter part of the eighteenth century. These four paintings are copies or different versions of four species collected on Cook's second voyage which were painted by the unknown artist referred to earlier. The birds in question are :

- Gallirallus australis australis* (Sparrm.), 1786. South Island Weka of New Zealand.
See also P.R. 17.

- Theristicus caudatus melanopis* (Gm.), 1789. Black-faced Ibis.
See also P.R. 15.

- Prothemadera novaeseelandiae* (Gm.), 1788. Tui or Parson-bird.
See also P.R. 23.

- Eunymphicus cornutus* (Gm.), 1788. Crested Parakeet.
See also P.R. 20.

(d) Some paintings by J. F. Miller.

71. *Crax rubra rubra* Linn., 1758. American Curassow.
A signed painting by J. Miller jun.

72. *Pionites melanocephala* (Linn.), 1758. Black-headed Caique.

Signed painting by John Frederick Miller, 1775, who reproduced it the following year (pl. 4). On the back is written in Banks's hand "The bird was sent alive from the West Indies as a present to Miss Ray in whose collection it was drawn. —nd spec. in Sp. vin."

Miss Ray was beloved by Lord Sandwich for many years ; she was a woman of great charm and gentleness, and able to disarm criticism to a large extent. *Pionites melanocephala* is a South American species ; it does not occur in the West Indies.

73. *Paroaria cucullata* (Lath.), 1790. Red-crested Cardinal.
A painting signed by John Frederick Miller, 1774.

Latham's description of this South American species was based on a plate by Peter Brown as well as on this one but since Brown's is mentioned first this one cannot be regarded as the type.

(e) The following paintings are the work of Peter Paillou. They are obviously his work although they are unsigned. They were indexed by Dryander with most of the others in this series.

87. *Podiceps cristatus* (Linn.), 1758. Great Crested Grebe.

A version of this painting was reproduced in the folio edition (1766, pl. 67) of Pennant's *British Zoology*, but it does not compare with the original which is much more richly coloured. One is reminded of Pennant's complaint that Paillou's colours were "gaudy"; he perhaps was responsible for having them altered so sadly.

88. *Caprimulgus europaeus* Linn., 1758. European Nightjar.

An engraving from this painting was reproduced in the smaller (1768, pl. 59) as well as in the folio edition of *British Zoology* (pl. 51); it is inferior to the original.

90. *Merops viridis* Linn., 1766. A race of the Little Green Bee-eater.

Pl. 7 in Pennant's *Genera of Birds* (1781) was engraved from this painting.

96. *Platalea leucorodia* (Linn.), 1758. Common Spoonbill.

This has apparently not been published.

97. *Grus antigone* (Linn.), 1758. Sarus Crane.

Dryander states that this was painted from a living bird.

(f) Plates by an unknown painter.

The artist who executed the last two paintings in this volume has not been identified. One, f. 130, is of the Purple Gallinule *Porphyrio madagascariensis* which is also figured on pl. 49 (one of Mrs. Brant's birds); the other, f. 129, represents *Vidua macroura*, the Pin-tailed Whydah, also figured on f. 40 (one of Masson's birds). The MS. note on the Whydah is "a Bird of Passage Dolsa, when the fruits of the Capparis are in season."

The note on the Gallinule states: "Bird of Passage—generally comes here at this time of the year when the wheat is in Season. We call it *Chroata colum*—. Tabernetty, 20 Dec. 1787."

REFERENCES

- ALEXANDER, W. B. 1928. *Birds of the Ocean*. New York and London.
 ——— 1954. ——— 2nd. ed. New York.
 ALLEN, E. G. 1951. The History of American Ornithology before Audubon. *Trans. Amer. Phil. Soc. N.S.* **41**: 398–591.
 AMADON, D. 1942. Birds collected during the Whitney South Sea Expedition. 49. Notes on some non-passerine genera. 1. *Amer. Mus. Novit.* **1175**: 1–11.
 ——— 1942a. Birds collected during the Whitney South Sea Expedition. 50. Notes on some non-passerine genera. 2. Notes on Polynesian Lories. *Ibid.* **1176**: 1–21.
 ——— 1943. Birds collected during the Whitney South Sea Expedition. 52. Notes on some non-passerine genera. 3. *Ibid.* **1237**: 1–22.

- ANDERSON, WILLIAM [n.d.] *Characteres breves Avium (in itinere nostro circum orbe visa) adhuc incognitarum anni 1772-1775*. MS. British Museum (Natural History). 13 pp.
- *Zoologia nova seu characteres & historia Animalium hactenus incognitorum qui in itinere nostro videbantur 1776 in linguis Latinis & Anglicis traditus*. The appendix is dated 1777. MS. British Museum (Natural History). 38 pp.
- (1776-78). *A Journal of a Voyage made in his Majesty's Sloop "Resolution."* May 16th 1776. MS. Public Record Office, London.
- ANON. (1772-75). [Unpublished Drawings of Birds from Cook's Second Voyage round the World, 1772-1775, ff. 7-23 in *Natural History Drawings by various Artists in the Collection of Sir Joseph Banks*. q.v.] British Museum, Print Room.
- (1772-75). *Thirty-eight coloured Drawings of Birds of the Southern Hemisphere, executed from the Life, in the Course of Captain Cook's Second Voyage*. M.E.5-42. Royal Scottish Museum.
- (1772-75). [Unpublished Drawings of Birds from Cook's Second Voyage round the World, 1772-1775; ff. 1-53]. Mitchell Library Sydney.
- AUSTIN, O. L., JR. 1932. The Birds of Newfoundland Labrador. *Mem. Nuttall Ornith. Club*, 7: 1-229.
- AZARA, F. DE. 1802-05. *Apuntamientos para la historia natural de los Páxaros del Paraguay y Río de la plata*. 3 vols. Madrid.
- BAKER, J. G. 1885. A monograph of the genus *Gethyllis*. *J. Bot.* 23: 227.
- BANKS, JOSEPH. 1766. *Journal of a Voyage to Newfoundland and Labrador: commencing April ye 7th and ending November the 17th 1766*. MS. in South Australian Branch of Royal Geographical Society, Adelaide. (Microfilm in British Museum, Natural History).
- 1766. M.S. *Catalogue of animals and plants collected in Newfoundland and Labrador*. McGill University Library.
- 1768-71. *Journal of a Voyage round the world with Captain Cook 1768-1771*. MS. in Mitchell Library, Sydney (now being published). (Photographic copy in British Museum.) See Hooker.
- n.d. [MS. *Lists in an unknown hand of the Bird Skins in Banks's Collection, from Labrador, the voyages of Captain Cook, the Cape of Good Hope etc.*] 4 pts. [In British Museum (Natural History).]
- [1822.] MS. *Inventory of the Library of Sir Joseph Banks*. 2 vols. British Museum.
- n.d. [Natural History Drawings by Various Artists namely, D'Auvergne, Cleveley, Colnett, Engleheart, Gilpin, Gordon, Greenwood, Metz, Miller, Paillou, Perrin, Rymsdyk, Sowerby et al. in the collection of Sir Joseph Banks.] In British Museum, Print Room, 199* B 4.
- BANKS, SOPHIA. 1772. Transcript of *Journal of a Voyage to Newfoundland and Labrador etc.* by her brother q.v. MS. British Museum (Natural History).
- BEAGLEHOLE, J. C. 1955. (ed.) *The Journals of Captain James Cook. The Voyage of the Endeavour, 1768-1771*. Hakluyt Society.
- BENNET, A. G. 1931. Additional Notes on the Birds of the Falkland Islands and Dependencies. *Ibis*, 13th ser., 1: 12-13.
- BISHOP, L. B. 1938. Correct names for the Red-backed Sandpiper and the Northern Long-billed Curlew. *Condor*, 40: 225-226.
- BLOCH, M. E. & SCHNEIDER, J. G. 1801. *M. E. Blochii—Systema Ichthyologiae iconibus CX illustratum. Post obitum auctoris opus inchoatum absolvit, correxit, interpolavit Jo. Gottlob Schneider, Saxo*. 2 vols. Berolini.
- BOSWELL, JAMES. 1951. *Boswell's London Journal 1762-1763*. Yale Editions of the Private Papers of James Boswell. London.
- BOURNE, W. R. P. 1957. The Sooty Petrel of Latham, *Fregetta fuliginosa* (Gmelin). *Bull. Brit. Orn. Cl.* 77: 40-42.
- BRITTEN, JAMES. 1884. Francis Masson. *J. Bot.* 22: 114-123.
- Masson's Drawings of South African Plants. *Ibid.* 22: 144-148.
- 1885. The Forster Herbarium. *Ibid.* 23: 360-368.

- BRITTEN, JAMES. 1900-05. *Illustrations of Australian Plants collected in 1770 during Captain Cook's Voyage—with determinations by J. Britten.* London.
- BROWN, PETER. 1776. *Nouvelles Illustrations de Zoologie.* London. (Text both in French and English.)
- BRYAN, E. H. JR. & GREENWAY, J. C. JR. 1944. Contribution to the Ornithology of the Hawaiian Islands. *Bull. Mus. Comp. Zool. Harvard*, **94**: 79-142.
- BUFFON, Count G. L. L. DE. 1779. *Histoire Naturelle des Oiseaux*, **6**. Paris.
- BULLER, WALTER L. 1887-88. *History of the Birds of New Zealand.* 2nd ed. 2 vols. London.
- BULLOCK, W. 1816. *A Companion to the London Museum, and Pantherion* London.
- 1819. *Catalogue—of the Roman Gallery—and the London Museum of Natural History—which will be sold—by Mr. Bullock.* London. (Annotated Copy. British Museum (Natural History).)
- BURROUGHS, ALAN. 1943. *John Greenwood in America.* Harvard.
- CAIN, A. J. 1955. A Revision of *Trichoglossus haematodus* and of the Australian platycercine parrots. *Ibis*, **97**: 432-479.
- CAMERON, H. C. 1952. *Sir Joseph Banks, K.B., P.R.S. The Autocrat of the Philosophers.* London.
- CARTWRIGHT, GEORGE. 1792. *A journal of transactions—during a residence of nearly sixteen years on the coast of Labrador.* 3 vols. Newark.
- CASHION, T. G. 1953. The Royal Penguin in Tasmanian Waters. *Emu*, **53**: 209-211.
- COOK, JAMES. 1955. *The Journals of Captain James Cook. The Voyage of the Endeavour, 1768-1771.* Ed. J. C. Beaglehole. Hakluyt Society.
- 1777. *A Voyage towards the South Pole and round the World. Performed in H.M.S. Resolution and Adventure, in 1772-1775. In Which is included Capt. Furneaux's Narrative etc.* 2 vols. London.
- & KING, JAMES. 1784. *A Voyage to the Pacific Ocean undertaken by command of his Majesty for making discoveries in the Northern Hemisphere etc. 1776-1780.* London.
- DAUBENTON, E. L. 1771-86. *Histoire Naturelle des Oiseaux.* (Edition with "Planches enluminées" drawn by Martinet.) 10 vols. Paris.
- D'AUVERGNE, PHILIP. 1773. [Original drawings of birds and fishes executed on Phipps's voyage towards the North Pole in 1773]; ff. 2-6 in *Natural History Drawings by Various Artists in the Collection of Sir Joseph Banks* q.v.
- 1805. *Biographical Memoir of Philip D'Auvergne, Duke of Bouillon Naval Chronicle*, **13**: 169-191.
- DE BEER, Sir G. R. 1952. The Relations between Fellows of the Royal Society and French Men of Science when France and Britain were at war. *Notes and Records Roy. Soc.* **9**: 244-299.
- DEMPSTER, GEORGE. 1934. *Letters of George Dempster to Sir Adam Fergusson 1756-1813. With some account of his life.* Ed. James Fergusson. London.
- DRYANDER, JONAS. n.d. *Manuscript Catalogue of the drawings of Animals in the Library of Sir J. Banks arranged in systematic order.* 251. pp. (In British Museum (Natural History).)
- n.d. [Manuscript Catalogue of drawings of birds by W. W. Ellis and William Webber, and of specimens collected on Captain James Gook's Third Voyage round the World 1776-1780.] 16 pp. (In British Museum (Natural History).)
- 1796-1800. *Catalogus Bibliothecae Historica-Naturalis J. Banks.* 5 vols. London.
- DWIGHT, JONATHAN. 1925. The Gulls (Laridae) of the World. *Bull. Amer. Mus. Nat. Hist.* **52**: 63-408.
- DYER, R. A. ? 1949. Colonel Robert Jacob Gordon's Contribution to South African Botany. *S. African Biol. Soc. Pamphl.* **14**: 44-62.
- EDWARDS, GEORGE. 1743-51. *A Natural History of Birds.* 4 pts. London.
- ELLIS, WILLIAM W. 1776-80. [Unpublished Water-colour and Pencil Drawings of Animals made during Cook's Third Voyage.] (In British Museum (Natural History).)

- ELLIS, WILLIAM W. 1783. *An Authentic Narrative of a Voyage performed by Captain Cook and Captain Clerke in His Majesty's Ships Resolution and Discovery, during the years 1777, 1778, 1779 and 1780.* 2 vols. London.
- FALLA, R. A. 1937. *B.A.N.Z. Antarctic Research Expedition.* Reports, ser. B, 2 : Birds. 14 + 288 pp. Adelaide.
- 1940. The Genus *Pachyptila* Illiger. *Emu*, **40** : 218–236.
- 1942. Review of the smaller forms of *Pterodroma* and *Cookilaria*. *Ibid.* **42** : 111–118.
- FERGUSON, JAMES. See Dempster, George.
- FLEMING, C. A. 1950. Some South Pacific Sea-bird Logs. *Emu*, **49** : 169–188.
- & SERVENTY, D. L. 1943. The Races of *Puffinus assimilis* in Australia and New Zealand. *Emu*, **43** : 113–125.
- 1952. On the specific name of the Little Shearwater. *Ibid.* **52** : 17–23.
- FORSTER, J. G. A. 1772–75. [*Unpublished Water-colour and Pencil Drawings of Animals made during Cook's Second Voyage.*] Fol. British Museum (Natural History).
- n.d. [*Catalogue of the drawings and collections of Animals taken on Cook's Second Voyage, 1772–1775.*] List 1 : an annotated list of the drawings (28 pp.). List 2 : a list of specimens with localities (21 pp.). MS. British Museum (Natural History).
- 1777. *A Voyage Round the World in His Britannic Majesty's Sloop, Resolution, commanded by Capt. James Cook, during the years 1772–5.* 2 vols. London.
- 1780. Beschreibung des rothen Baumläufers von der Insel O-Waihi. *Göttingisches Mag. Wiss. Litt.* **1**, pt. 2 : 346–351.
- FORSTER, J. R. 1778. *Observations made during a Voyage round the World, on Physical Geography, Natural History and Ethnic Philosophy . . .* London.
- 1781. *Historia Aptenodytae. Generis avium orbi australi proprii.* *Comm. Soc. Reg. Sci. Gott.* 1780, **3** : 121–148.
- 1785. Mémoire sur les Albatros. *Mém. Math. Phys. Paris (Acad. Sci.)* **10** : 563–572.
- 1844. *Descriptiones Animalium quae in itinere ad maris australis terras per annos 1772, 1773 et 1774 suscepto collegit observavit et delineavit Joannes Reinoldus Forster.* Ed. Lichtenstein, Berlin.
- FRIEDMANN, H. 1950. Birds of North and Middle America. Pt. 11. Families Cathartidae, Accipitridae, Pandionidae, Falconidae. *Bull. Smithsonian Inst. U.S. Nat. Mus.* **50** : 13 + 793 pp.
- FRIES, R. E. 1940. Daniel Solander 1733–1782. *K. svenska Vetensk. Akad. Årsbok.* **38** : 279–301.
- GADOW, H. 1884. Passeriformes : Cinnryimorphae. *Cat. Birds Brit. Mus.* **9** : 257.
- GARNOT, M. P. 1826. Remarques sur la Zoologie des îles Malouines faites pendant le Voyage autour du monde de la Corvette la Coquille, exécuté en 1822, 1823, 1824 et 1825. *Ann. Sci. Nat.* **7** : 39–59.
- GMELIN, J. F. 1788–93. *Systema Naturae . . . Editio Decima Tertia . . . cura J. F. Gmelin.* 3 vols. Lipsiae.
- GODMAN, F. DU CANE. 1907–10. *Monograph of the Petrels.* London.
- GORDON, R. J. n.d. [Original Drawings of South African Birds and other Animals ; ff. 32–60 in *Natural History Drawings by Various Artists in the Collection of Sir Joseph Banks*, q.v.]
- GRANT, C. H. B. & MACKWORTH-PRAED, C. W. 1952. On the Species and Races of the Yellow Wagtails from Western Europe to Western North America. *Bull. Brit. Mus. (Nat. Hist.) Zool.* **1** : no. 9, 255–268.
- 1954. Notes on some petrel names. *Bull. Brit. Orn. Cl.* **74** : 71–73.
- GRAY, G. R. 1844. *List of the Specimens in the Collection of the British Museum*, **3**. London.
- & SHARPE, R. BOWDLER. 1844–75. *Zoology of the Voyage of H.M.S. Erebus and Terror.* Birds. London.
- GREENWAY, J. C. 1958. *Extinct and Vanishing Birds of the World.* New York.
- GREENWOOD, JOHN. n.d. [Original Drawings of Birds and other Animals ; ff. 116–119, 127, in *Natural History Drawings by Various Artists in the Collection of Sir Joseph Banks*, q.v.]

- HARRISON, JAMES. 1806. *Life of the Right Honourable Horatio Lord Viscount Nelson*
2 vols. London.
- HARTERT, E. 1892. *Picariae* (in part). *Cat. Birds Brit. Mus.* 16.
- HELLMAYR, C. E. 1919-49. Catalogue of Birds of the Americas and the adjacent islands in the Field Museum of Natural History. *Publ. Field Columbian Mus. Zool. Ser.* 13, pts. I-II.
- HINDWOOD, K. A. 1946. The White-fronted Tern (*Sterna striata*) in Australia. *Emu*, 45: 179-200.
- HOOKE, Sir J. D. 1896. *Journal of the Right Hon. Sir Joseph Banks Bart., K.B., P.R.S. during Captain Cook's First Voyage in H.M.S. Endeavour in 1768-1771 to Terra del Fuego, Otahite, New Zealand, Australia, The Dutch East Indies etc.* Ed. by J. D. Hooker. London.
- HUTCHINSON, JOHN. 1946. *A Botanist in South Africa*. London.
- IREDALE, TOM. 1913. Solander as an Ornithologist. *Ibis*, 10th ser., 1: 127-135.
- 1925. George Forster's Paintings. *Austr. Zool.* 4: 48-53.
- 1925a. Captain Cook's Artists. *Austr. Mus. Mag.* 2: 224-230.
- 1937. J. R. and G. Forster, Naturalists. *Emu*, 37: 95-99.
- JARDINE, W. & SELBY, P. J. 1826-35. *Illustrations of Ornithology*. Edinburgh.
- KEEVIL, J. J. 1933. William Anderson, 1748-1778, Master Surgeon, Royal Navy. *Ann. Med. Hist. N.S.* 5: 511-524. (Reprinted in *J. Roy. Naval Med. Service*, 1935.)
- KER, I. B. 1818. Of the three species of the natural Order Orchideae, represented in Plate VI. *J. Sci. Arts*, 4: 199-206.
- KOZLOVA, E. V. 1945. Individual variation of *Cyanosylvia svecica* (L.) and the probable trend of its evolution. *Zool. J. Moscow*, 24: 299-308. (English Summary.)
- KUHL, HEINRICH. 1820. *Beiträge zur Zoologie und vergleichenden Anatomie*. Frankfurt-am-Main.
- LATHAM, J. 1781-1802. *A General Synopsis of Birds*. 3 vols. (in 6), with two Supplements (2 vols.).
- 1790. *Index Ornithologicus*. 2 vols. London. A supplement appeared later and was bound in the 2nd volume of the supplement to the General Synopsis. Sherborn (*Index Animalium*) gives 1801 as date of publication but Zimmer (*Cat. Ayer Ornithological Library*) gives some evidence that 1802 is more probable.
- 1821-28. *General History of Birds*. 11 vols. London.
- LEFRANC, J. 1929. *Bougainville et ses Compagnons*. Paris.
- LESSON, R. P. 1827. Description du genre *Todiramph*, et de deux espèces d'oiseaux. *Mém. Soc. d'Hist. nat. Paris*, 3: 419-422.
- 1828. *Manuel d'Ornithologie*. 2 vols. Paris.
- LEVAILLANT, F. 1796-1812. *Histoire naturelle des Oiseaux d'Afrique*. 6 vols. Paris.
- LEVER, A. 1806. *Catalogue of the Leverian Museum*. 7 pts. with appendix. London. (Annotated copy with sale prices etc. in British Museum (Natural History).)
- LINNAEUS, C. 1758. *Systema Naturae*. Tom. 1, 10th ed., Holmiae.
- 1766. *Systema Naturae*. Tom. 1, 12th ed., Holmiae. (An interleaved copy with MS. notes by Solander is in the British Museum (Natural History).)
- LÖNNBERG, E. 1921. The Birds of the Juan Fernandez Islands. *Nat. Hist. Juan Fernandez and Easter Island* (ed. C. J. F. Skottsberg), 3, Zoology: 1-17.
- Notes on Birds from Easter Island. *op. cit.*: 19-24.
- LOWE, P. R. 1927. On the anatomy and systematic position of *Aechmorrhynchus cancellatus* (Gmelin), together with some notes on the Genera *Bartramia* and *Mesoscolopax* etc. *Ibis*, 12th ser. 3: 114-132.
- LYSAGHT, AVERIL. 1952. Manchots de l'Antarctique en Nouvelle-guinée. *L'Oiseau et R.F.O.* 22: 120-124.
- 1953. A Rail from Tonga, *Rallus philippensis ecaudata* Miller, 1783. *Bull. B. O. Cl.* 73: 74-75.
- 1956. A note on the Polynesian Black or Sooty Rail *Porgana nigra* (Miller), 1784. *Ibid.* 76: 97-98.

- LYSAGHT, AVERIL & SERVENTY, D. L. 1956. Some erroneous distribution records in Parkinson's "Journal of a Voyage to the South Seas, 1773." *Emu*, **56** : 129-130.
- MASSON, FRANCIS. 1776. An Account of Three Journeys from the Cape Town into the Southern Parts of Africa; undertaken for the discovery of new Plants, towards the Improvement of the Royal Botanical Gardens at Kew. By Mr. Francis Masson, one of his Majesty's Gardeners. Addressed to Sir John Pringle, Bart., P.R.S. *Phil. Trans.* **66**, pt. 1 : 268-317.
- MATHEWS, G. M. 1910-27. *Birds of Australia*. 13 vols. London.
- 1927-30. *Systema Avium Australasianarum*. 2 vols. London.
- 1931. John Latham (1740-1837): an early English Ornithologist. *Ibis*, 13th ser. **1** : 466-475.
- 1938. *Pachyptila*, or the Prions. *Emu*, **37** : 280-284.
- & IREDALE, TOM. 1921. *A Manual of the Birds of Australia*, **1**. London.
- 1921a. Notes of interest. *Australian Avian Record*, **4**, no. 6 : 139-164.
- MAYR, E. 1931. Birds collected during the Whitney South Sea Expedition. 13. A systematic list of the birds of Rennell Island with descriptions of new species and sub-species. *Amer. Mus. Novit.* **486** : 29 pp.
- 1932. Birds collected during the Whitney South Sea Expedition. 18. Notes on Meliphagidae from Polynesia and the Solomon Islands. *Ibid.* **516** : 30 pp.
- 1935. Birds collected during the Whitney South Sea Expedition. 30. Descriptions of twenty-five new species and sub-species. *Ibid.* **820** : 6 pp.
- 1941. Birds collected during the Whitney South Sea Expedition. 47. Notes on the genera *Halcyon*, *Turdus* and *Eurostopodus*. *Ibid.* **1152** : 7 pp.
- 1942. Birds collected during the Whitney South Sea Expedition. 48. Notes on the Polynesian species of *Aplonis*. *Ibid.* **1166** : 6 pp.
- 1944. Birds collected during the Whitney South Sea Expedition. 54. Notes on some genera from the southwest Pacific. *Ibid.* **1269** : 8 pp.
- 1945. *Birds of the Southwest Pacific*. New York.
- 1949. Artbildung und Variation in der *Halcyon-Chloris* Gruppe. *Ornithologie als Biologische Wissenschaft . . . Festschrift . . . E. Stresemann* : 55-60. Heidelberg.
- & AMADON, D. 1941. Birds collected during the Whitney South Sea Expedition. 46. Geographical variation in *Demigretta sacra* (Gmelin). *Amer. Mus. Novit.* **1144** : 11 pp.
- & RIPLEY, S. D. 1941. Birds collected during the Whitney South Sea Expedition. 44. Notes on the genus *Lalage* Boie. *Ibid.* **1116** : 18 pp.
- MERREM, BLASIUS. 1784-86. *Beyträge zur besondern Geschichte der Vögel*. Göttingen.
- 1786-87. *Avium rar. et minus cognit. Icones et descript.* (A Latin edition of the *Beyträge*, with scientific binomials.) Lipsiae.
- MERRILL, E. D. 1954. The Botany of Cook's Voyages and its Unexpected Significance in Relation to Anthropology, Biogeography and History. *Chronica Botanica*, **14**, nos. 5/6 : 162-384.
- METZ, GERTRUD. n.d. [Original Drawings of Birds from Cook's Second Voyage round the World, 1772-1775; ff. 61-64 in *Natural History Drawings by Various Artists in the Collection of Sir Joseph Banks* q.v.]
- MILLER, J. F. n.d. [Original Drawings of Birds and other Animals; ff. 65-86 in *Natural History Drawings by Various Artists in the Collection of Sir Joseph Banks*, q.v.]
- 1776-85. *Various Subjects of Natural History, wherein are delineated Birds, Animals and many curious Plants, etc.* London. (See Sherborn & Iredale, 1921.)
- 1796. *Cimelia Physica*. London. (Another edition of the previous work, with text by George Shaw.)
- MULLENS, W. H. 1915. Some Museums of Old London. 1. The Leverian Museum. *Museums J.* **15** : 162-172.
- MÜLLER, PHILIPP LUDWIG STATIUS. 1773-76. *Des Ritters C. von Linné . . . vollständiges Natursystem nach der zwölften Lateinischen Ausgabe*, etc. 6 Thl. and Suppt. (in 9 vols.). Nürnberg.

- MURPHY, R. C. 1924. The Whitney South Sea Expedition. A sketch of the Bird Life of Polynesia. *Natural History*, **24** : 539-553.
- 1924a. Birds collected during the Whitney South Sea Expedition. 1. *Amer. Mus. Novit.* **115** : 11 pp.
- 1927. On certain forms of *Puffinus assimilis* and its allies. *Ibid.* **276** : 15 pp.
- 1936. *Oceanic Birds of South America*. 2 vols. New York.
- & IRVING, SUSAN. 1951. Review of the Frigate-petrels (*Pelagodroma*). *Amer. Mus. Novit.* **1506** : 17 pp.
- & MATHEWS, G. M. 1928. Birds collected during the Whitney South Sea Expedition. 5. *Ibid.* **337** : 18 pp.
- 1929. Birds collected during the Whitney South Sea Expedition. 6. *Ibid.* **350** : 21 pp.
- & PENNOYER, J. M. 1952. Birds collected during the Whitney South Sea Expedition. 60. Larger Petrels of the Genus *Pterodroma*. *Ibid.* **1580** : 43 pp.
- & SNYDER, J. PENNOYER. 1952. The "Pealea" phenomenon and other notes on storm petrels. *Ibid.* **1596**. 16 pp.
- OLIVER, W. R. B. 1930. *New Zealand Birds*. Wellington.
- PAILLOU, PETER. n.d. [Original Drawings of Birds and other Animals; ff. 87-110 in *Natural History Drawings by Various Artists in the Collection of Sir Joseph Banks* q.v.]
- PALMER, T. S. 1916. The Type Locality of *Colaptes cafer*. *Auk*, **33** : 322-324.
- PARKINSON, SYDNEY. 1766-68. [*Drawings of Birds, Fishes etc.*] British Museum, Print Room, 199* B 1, ff. 1-52.
- 1768-71. [*Unpublished Water-colour Drawings of Animals made during Cook's First Voyage.*] Fol. British Museum (Natural History).
- 1773. *A Journal of a Voyage to the South Seas in His Majesty's Ship The Endeavour*. London.
- PEALE, TITIAN R. 1848. Mammalia and Ornithology. *United States Exploring Expedition during 1838-42, etc.* **8**.
- VON PELZELN, A. 1873. On the Birds in the Imperial Collection at Vienna obtained from the Leverian Museum. *Ibis*, 3rd ser. **3** : 14-54; 107-124.
- PENNANT, T. 1766. *British Zoology*. London and Chester.
- 1781. *History of Quadrupeds*. London.
- 1781a. *Genera of Birds*. London.
- 1784-87. *Arctic Zoology*. 2 vols. and suppt. London.
- 1793. *The Literary Life of the Late Thomas Pennant Esq.* London.
- PETERS, H. S. & BURLEIGH, T. D. 1951. *The Birds of Newfoundland*. Boston.
- PETERS, J. L. 1931-51. *Check List of Birds of the World*. 7 vols. Cambridge, Mass.
- PHILLIP, ARTHUR. 1789. *The Voyage of Governor Phillip to Botany Bay . . .* London. (Compiled from various journals.)
- PHIPPS, C. J. 1774. *A Voyage towards the North Pole undertaken by His Majesty's Command* 1773. London.
- PRITZEL, J. A. 1872. *Thesaurus Literaturae Botanicae*. nov. ed. Lipsiae.
- RIPLEY, S. D. & BIRCKHEAD, H. 1942. Birds collected during Whitney South Sea Expedition. 51. On the fruit pigeons of *Ptilinopus purpuratus* group. *Amer. Mus. Novit.* **1192** : 14 pp.
- ROTHSCHILD, W. 1893-1900. *The Avifauna of Laysan*, 3 pts. London.
- 1907. *Extinct Birds*. London.
- ROWLEY, G. D. (ed.). 1875. *Ornithological Miscellany*, **1**. London and Brighton.
- SALVADORI, T. 1891. Psittaci or Parrots. *Cat. Birds Brit. Mus.* **20**.
- 1893. Columbæ or Pigeons. *Ibid.* **21**.
- SALVIN, O. 1875. Critical Notes on Procellariidae. Pt. 1. Banks's unpublished Drawings. *Rowley's Ornithological Miscellany*, **1** : 223-238.
- 1879. On some Birds transmitted from the Samoan Islands by the Rev. T. Powell. *Proc. Zoo. Soc. London* : 128-131.
- 1896. Tubinares (Petrels and Albatrosses). *Cat. Birds Brit. Mus.* **25**.

- SASSI, M. 1928. *Hypocharmosyna pygmaea* Gm. = *Hypocharmosyna palmarum* Gm. *Ornith. Monatsber.* 36 : 53.
- SAUNDERS, H. 1896. Gaviae (Terns, Gulls and Skuas). *Cat. Birds Brit. Mus.* 25.
- SAWYER, F. C. 1950. Some Natural History Drawings made during Captain Cook's first voyage round the world. *J. Soc. Bibl. Nat. Hist.* 2 : 190-193.
- SEEBOHM, H. 1881. Cichlomorphae : Part 2 containing the family Turdidae (Warblers and Thrushes). *Cat. Birds Brit. Mus.* 5.
- SHARPE, R. BOWDLER. 1875. Striges. *Cat. Birds Brit. Mus.* 2.
- 1883. Cichlomorphae : part 4. *Ibid.* 7.
- 1890. Passeriformes or Perching Birds : Sturniformes etc. *Ibid.* 13.
- 1892. Picariae (in part). *Ibid.* 17.
- 1906. *The History of the Collections contained in the Natural History Departments of the British Museum : Birds*, 2 : 79-515.
- SHAW, GEORGE. 1796. See Miller, J. F., 1796.
- 1800-26. *General Zoology or Systematic Natural History*. 14 vols. (in 28). (Completed by J. F. Stephens.) London.
- & NODDER, F. P. 1789-1808. *The Naturalist's Miscellany*. 19 vols. London.
- SHERBORN, C. D. 1902-33. *Index Animalium*. 11 vols. London.
- 1940. *Where is the — Collection?* Cambridge.
- & IREDALE, TOM. 1921. *J. F. Miller's Icones*. *Ibis*, 11th ser., 3 : 302-309.
- SKOTTSBERG, C. J. F. (Ed.). 1921-40. *The Natural History of Juan Fernandez and Easter Island*. 3. Zoology. See Lönnberg, E.
- SMITH, EDWARD. 1911. *Life of Sir Joseph Banks* London.
- SOLANDER, D. C. n.d. [Descriptions of animals observed during Captain Cook's First Voyage.] Solander MS. Z4 ; in British Museum (Natural History).
- n.d. MS. annotations to the *Systema Naturae*, 12th ed. See Linnaeus, 1766.
- SPARRMAN, A. 1786. *A Voyage to the Cape of Good Hope, towards the Antarctic Polar Circle, and Round the World but chiefly into the Country of the Hottentots and Caffres from the year 1772 to 1776*. Translated from the Swedish original [by G. Forster]. 2nd ed. London.
- 1786-89. *Museum Carlsonianum*. 4 fasc. Holmiae.
- SPRENGEL, WILHELMINA. 1799. [Autograph Letter to Sir Joseph Banks.] British Museum, Manuscript Room. Add. MSS. 8098 : 486-487.
- STICKNEY, E. H. 1943. Birds collected during the Whitney South Sea Expedition. 53. Northern Shore Birds in the Pacific. *Amer. Mus. Novit.* 1248 : 9 pp.
- [STRESEMANN, E.] 1927. Eine *Pennula sandwichensis* im Wiener Museum entdeckt. *Orn. Monatsber.* 35 : 49.
- STRESEMANN, E. 1949. Birds collected in the North Pacific Area during Capt. James Cook's last voyage (1778 and 1779). *Ibis*, 91 : 244-255.
- 1950. Birds collected during Capt. James Cook's last expedition (1776-80). *Auk*, 67 : 66-88.
- 1953. Additions and correction to "Birds collected in the North Pacific Area during Capt. James Cook's last voyage." ('*Ibis*', 1949 : 244-255). *Ibis*, 95 : 371.
- SWAINSON, W. 1840. *Taxidermy with the Biography of Zoologists and Notices of their Works*. London.
- SWARTH, H. S. 1912. Report on a collection of birds and mammals from Vancouver Island. *Univ. Calif. Publ. Zool.* 10 (1) : 125 pp.
- 1920. Revision of the avian genus *Passerella* with special reference to the distribution and migration of the races in California. *Ibid.* 21 : 75-224.
- TEMMINCK, C. J. (in Knip, P. de). 1809-11. *Les Pigeons*. Paris.
- TOWNSEND, C. H. & WETMORE, A. 1919. Reports on the Scientific Results of the expedition to the tropical Pacific in charge of Alexander Agassiz, on the—"Albatross"—1899-1900—. 21. The Birds. *Bull. Mus. Comp. Zool. Harvard*, 63 : 151-225.
- VAURIE, C. 1949. A Revision of the Bird Family Dicruridae. *Bull. Amer. Mus. Nat. Hist.* 93 : 205-342.

- VIEILLOT, LOUISE-PIERRE. 1816-19. Articles on birds in the *Nouveau Dictionnaire d'Histoire Naturelle*. 2nd ed., 36 vols. Paris.
- WAGLER, J. 1829. Beiträge und Bemerkungen zu dem ersten Bande seines *Systema Avium* (Fortsetzung III). *Isis*, 22: 736-762.
- 1830. *Natürliches System der Amphibien mit vorangehender Classification der Säugethiere und Vögel*. München, Stuttgart und Tübingen.
- WEBBER, JOHN. 1776-80. [Unpublished Water-colour Drawings of Animals made during Cook's Third Voyage.] Print Room, British Museum.
- WHITE, JOHN. 1790. *Journal of a Voyage to New South Wales*. London.
- WHITTELL, H. M. 1954. *The Literature of Australian Birds: A History and a Bibliography of Australian Ornithology*. Perth.
- WIGLESWORTH, L. W. 1891. Aves Polynesiae. A Catalogue of the Birds of the Polynesian Subregion (not including the Sandwich Islands). *Abh. Ber. Königl. Zool. Mus. Dresden* 1890-91: 10 + 92 pp.
- WILSON, SCOTT B. & EVANS, A. H. 1890-99. *Aves Hawaienses: The Birds of the Sandwich Islands*. London.
- WOOD, CASEY A. 1931. *An Introduction to the Literature of Vertebrate Zoology*. London.

APPENDIX A

List of Birds Collected by Sir Joseph Banks in Newfoundland and Labrador, May-October, 1766.

Most of the birds in this list have been identified from Banks's detailed descriptions in the McGill MS. of the animals he collected in Newfoundland and Labrador. His notes, now bound together, were originally on loose sheets for, as he explains, "I could not carry any Book without submitting it to the inspection of every petty Officer who chose to peruse it, I was contented with notes taken on small pieces of paper" (Transcript, S. Banks: 41). That many sheets are now unfortunately missing is shown by some catalogue numbers and by numbered references in the diary to descriptions of animals other than birds only two of which can now be found. Some of the notes on birds are also missing but it has been possible to supplement those that have survived by reference to brief descriptions in the diary, to the annotated lists of bird skins in his collection at a later date, and to the paintings by Parkinson and Paillou discussed elsewhere in this study. The species listed below are arranged systematically. A detailed account of Banks's collections will be published elsewhere.

COLYMBIDAE	<i>Colymbus immer</i> Brunn., 1764. <i>Colymbus stellata</i> Pontoppidan, 1763.
PODICIPIDAE	<i>Podiceps auritus</i> (Linn.), 1758.
ARDEIDAE	<i>Botaurus lentiginosus</i> (Montagu), 1813.
ANATIDAE	<i>Anas acuta tazitihua</i> Vieillot, 1816. <i>Anas crecca carolinensis</i> Gm., 1788. <i>Anas discors</i> Linn., 1766. <i>Histrionicus histrionicus</i> (Linn.), 1758. <i>Somateria mollissima</i> (Linn.) 1758. <i>Somateria spectabilis</i> (Linn.), 1758.

- ANATIDAE *Melanitta fusca deglandi* (Bonaparte), 1850.
 Melanitta perspicillata (Linn.), 1758.
 Camptorhynchus labradorius (Gm.), 1789.
 Mergus serrator Linn., 1758
- ACCIPITRIDAE *Accipiter gentilis novae-terrae* (Gm.), 1788.
 Buteo lagopus s.-johannis (Gm.), 1788.
 Aquila chrysaetos canadensis (Linn.), 1758.
 ? *Haliaeetus leucocephalus washingtoniensis* (Audubon), 1827.
 Circus cyaneus hudsonius (Linn.), 1766.
 Falco peregrinus anatum Bonaparte, 1838.
 Falco columbarius columbarius Linn., 1758.
- TETRAONIDAE *Lagopus lagopus lagopus* (Linn.), 1758.
 Lagopus lagopus alleni Stejneger, 1884.
 Canachites canadensis (Linn.), 1758.
- CHARADRIIDAE *Charadrius hiaticula semipalmatus* Bonaparte, 1825.
 Pluvialis dominica dominica (Müller), 1776.
 Arenaria interpres (Linn.), 1758.
- SCOLOPACIDAE *Capella gallinago delicata* (Ord.), 1825.
 Numenius phaeopus hudsonicus Latham, 1790.
 Numenius borealis (Forster), 1772.
 Actitis macularia (Linn.), 1766.
 Tringa melanoleuca (Gm.), 1789.
 Erolia melanotos (Vieillot), 1819.
 Erolia fuscicollis (Vieillot), 1819.
 Erolia minutilla (Vieillot), 1819.
 Erolia alpina pacifica (Coues), 1862.
 Limnodromus griseus (Gm.), 1789.
 Ereunetes pusillus (Linn.), 1766.
 Limosa haemastica (Linn.), 1758.
 Crocethia alba (Pallas), 1764.
- PHALAROPODIDAE *Phalaropus fulicarius* (Linn.), 1758.
 Lobipes lobatus (Linn.), 1758.
- STERCORARIDAE *Stercorarius* sp. (immature bird).
- LARIDAE *Larus marinus* Linn., 1758.
 Rissa tridactyla (Linn.), 1758.
- ALCIDAE *Pinguinus impennis* (Linn.), 1758.
 Cepphus grylle (Linn.), 1758.
- STRIGIDAE *Surnia ulula caparoch* (Müller), 1776.
- ALCEDINIDAE *Ceryle alcyon* (Linn.), 1758.
- PICIDAE *Colaptes auratus* (Linn.), 1758.
 Dendrocopus villosus terraenovae (Batchelder), 1908.
- ALAUDIDAE *Eremophila alpestris* (Linn.), 1758.

HIRUNDINIDAE	<i>Hirundo rustica erythrogaster</i> Boddaert, 1783.
CORVIDAE	<i>Perisoreus canadensis nigricapillus</i> Ridgway, 1883. <i>Cyanocitta cristata bromia</i> Oberholser, 1921.
TURDIDAE	<i>Turdus migratorius</i> (Linn.), 1766. <i>Hylocichla ustulata</i> (Nuttall), 1840.
LANIIDAE	<i>Lanius excubitor borealis</i> Vieillot, 1807.
COMPSOTHYLPIDAE	<i>Dendroica petechia</i> (Linn.), 1766. <i>Dendroica breviunguis</i> (Spix), 1824. <i>Dendroica palmarum</i> (Gm.), 1789. <i>Wilsonia pusilla</i> (Wilson), 1811.
ICTERIDAE	<i>Euphagus carolinus</i> (P. L. S. Müller), 1776.
FRINGILLIDAE	<i>Pinicola enucleator leucura</i> (P. L. S. Müller), 1776. <i>Loxia leucoptera</i> Gm., 1789. <i>Passerculus sandwichensis labradorius</i> Howe, 1901. <i>Passerella iliaca</i> (Merrem), 1786. <i>Melospiza georgiana</i> (Lath.), 1790. <i>Plectrophenax nivalis</i> (Linn.), 1758.

APPENDIX B

Index to the Birds Described by Solander on Cook's First Voyage 1768-71.

The birds of Captain Cook's first expedition were drawn and described in the field by Parkinson and Solander, and a number of skins were preserved. A fair copy of Solander's descriptions was drawn up after his return to England but, perhaps owing to his premature death was never published. It is now at the British Museum (Natural History) (Solander MS. Z4.). Lists of the drawings of birds from Cook's second and third expeditions and a catalogue of bird skins in Bank's collection were recently discovered by Dr. Bourne. The Solander MS. contains the first descriptions of many southern petrels; although it was never published it influenced the study of the group because it was known to many later authors, including Kuhl, Gray, and Bonaparte, who introduced Solander's names for the same or similar species. The history of the manuscript is discussed by G. M. Mathews (*The Birds of Australia*, 2, 1912) who published all the most important descriptions.

In the following index Solander's species are arranged in alphabetical order of genera and species with the MS. page numbers, cross references to Parkinson's drawings, and provisional identifications; the dates and localities are normally taken from Solander, and where they are taken from the plate they are given in brackets. Mathews has already analysed much of this list according to the place and date of origin of the petrels, many of which were collected at one time; further information on the date and locality of many specimens, together with additional sight records of many species, are contained in Banks's *Endeavour* diary (now in the press) and while this additional information has not been incorporated in the

present list it is hoped that the publication of the provisional identifications here will make it possible to identify the birds mentioned in other diaries of Cook's voyages and help to trace the original source of names first published by Gmelin, Kuhl, Forster, Gray, and Mathews. The final draft of this list was kindly revised for me by Dr. W. R. P. Bourne.

- Anas antarctica* (p. 1, f. 11). Terra del Fuego. *Anas flavirostris* Vieill.
Diomedea antarctica (p. 9, f. 26). Antarctic Ocean and Terra del Fuego; 1 Feb. 1769, 59° S.
Phoebastria palpebrata (Forster).
Diomedea exulans (p. 3, f. 25). 23 Dec. 1768, 37° S.; 3 Mar. 1769, Pacific Ocean, 36° 49' S. 111° 30' W. Immature *Diomedea exulans* Linn.
Diomedea exulans var. (p. 5). Antarctic Ocean south of Terra del Fuego; 3 Feb. 1769, 58° 30' S. Young female *Diomedea exulans* Linn.
Diomedea exulans var. (p. 7). Southern Ocean; 2 Oct. 1769, 37° 10' S. 171° 5' W.; 6 Jan. 1770, 35° 8' S. 188° 30' W.; 11 Apr. 1770, 39° 17' S. 204° 6' W. Old male *Diomedea exulans* Linn.
Diomedea immutabilis (p. 13). Southern Ocean; 11 April 1770, 39° 17' S. 204° 6' W. *Diomedea melanophrys* Temm.
Diomedea propinqua (p. 11). Antarctic Ocean; 3 Feb. 1769, South of Terra del Fuego, 58° 30' S.; 15 Feb. 1769, South Pacific, 48° 27' S. *Diomedea chrysostoma* Forster.
Larus canus (p. 33). "As *Larus canus* Linn."
Larus crepidater (p. 39). "Between the Tropics" (In the Atlantic). Possibly immature *Stercorarius pomarinus* (Temm.).
Larus fuliginosa (p. 41). 4 Dec. 1768, Rio de Janeiro. Possibly immature *Stercorarius parasiticus* Linn.
Larus gregarius (p. 35, f. 32). Shores of Terra del Fuego. *Larus maculipennis* Licht.
Larus naevius (p. 37). "As *Larus naevius* Linn." *Rissa tridactyla* Linn.
Larus nigricans (p. 43). 4 Dec. 1768, Rio de Janeiro. Adult *Stercorarius parasiticus* Linn.
Larus skua (p. 45). Southern Ocean; 23 Feb. 1770, 44° 40' S. 188° W. *Catharacta skua* Brünnich.
Loxia nilens (p. 119, f. 37B). South Brazil. *Volatinia jacarina* (Linn.).
Motacilla alba (p. 121, f. 38A). 28 Sept. 1768, 19° N. (Off West Africa). *Motacilla flava* Linn.
Motacilla alba (p. 123, f. 38B). 3 Sept. 1768, at sea off France and Spain. *Oenanthe oenanthe* (Linn.).
Necris carbonaria (p. 113). 24 Dec. 1769, near Three Kings Islands, 187° W. (New Zealand). *Puffinus carneipes* Gould. Var. 1 from 38° 52' S. 175° 30' W. and Var. 2 from the sea south of New Holland, 25° 33' S., 18 May 1770, are probably *Puffinus pacificus* (Gmelin).
Necris fuliginosa (p. 111, f. 23). Southern Ocean; 15 Feb. 1769, 48° 27' S. 93° W.; 2 Oct. 1769, 37° 10' S. 171° 5' W.; 6 Jan. 1770, 35° 8' S. 188° 30' W.; 11 Apr. 1770, 39° 17' S. 204° 6' W. *Puffinus griseus* (Gmelin).
Necris munda (p. 115, f. 24). Southern Ocean; 15 Feb. 1769, 48° 27' S. 93° W.; 6 Jan. 1770, 35° 8' S. 188° 30' W. *Puffinus assimilis* Gould.
Necris nugax (p. 117). Sea of New Holland. 6 June 1770, 19° S. 213° W. *Puffinus l'herminieri* Lesson.
Otis pileata (p. 105). Bustard Bay, Australia. *Eupodotis australis* Gray.
Pelecanus antarcticus (p. 15, f. 29). Terra del Fuego. *Phalacrocorax albiventer* Lesson.
Pelecanus aquilus (p. 19, f. 28). Tropical America (Rio de Janeiro). *Fregata magnificens* Mathews.
Pelecanus piscator (p. 21). "Pelecanus piscatrix Linnaeus."
Pelecanus seclator (p. 17, f. 30). Southern Ocean; 24 Dec. 1769, 33–36° S. 185–187° W. *Sula serrator* Gray.
Pelecanus sula (p. 23). The Southern Ocean near New Holland, within the tropics. *Sula leucogaster* (Boddaert).
Phaeton aethereus (p. 27). Tahiti. *Phaethon aethereus* Linn.

- Phaeton erubescens* (p. 29, f. 31). 21 Mar. 1769, near Tahiti. *Phaethon rubricauda melano-rhynchos* Gm.
- Procellaria agilis* (p. 69). South Pacific; 3 Mar. 1769, 36° 49' S. 111° 30' W. ? *Pterodroma externa cervicalis* (Salvin).
- Procellaria aequorea* (p. 57, f. 13). South American Seas; 23 Dec. 1768, 37° S. *Pelagodroma marina* (Latham).
- Procellaria atrata* (p. 81). South Pacific, 21 Mar. 1769, 25° 21' S. 129° W. Possibly the dark phase of *Pterodroma heraldica* (Salvin).
- Procellaria capensis* (p. 79). Between 30° and 40° S. in the Southern Ocean. *Daption capensis* (Linn.).
- Procellaria crepidata* (p. 87, f. 52 (vol. 199* B1)). Between the tropics (off West Africa). *Pterodroma mollis feae* (Salvadori).
- Procellaria fregata* (p. 51, f. 14). Var. A, South American Seas; 22 Dec. 1768, 37° S. *Fregetta grallaria* (Vieill.). Var. B, Southern Ocean south of Terra del Fuego; 2 Feb. 1769, 58° S. *Fregetta tropica* (Gould).
- Procellaria fuliginosa* (p. 77, f. 19). Southern Ocean; 2 Feb. 1769, south of Terra del Fuego, 58° S.; 23 Feb. 1769, 44° 35' S. 109° 2' W. *Procellaria aequinoctialis* Linn.
- Procellaria gigantea* var. A. (p. 73, f. 17). Off Terra del Fuego; 2 Feb. 1769, 58° S. *Macronectes giganteus* (Gmelin).
- Procellaria gigantea* var. B. (p. 75, f. 18). South American Seas; 22 Dec. 1768, 37° S. *Macronectes giganteus* (Gmelin).
- Procellaria latirostris* (p. 61). Southern Ocean. 2 Oct. 1769, 37° 10' S. 171° 5' W. ? *Pachyptila vittata* Forster.
- Procellaria longipes* (p. 63). Southern Ocean. 2 Oct. 1769, 37° 10' S. 171° 5' W.; 6 Jan. 1770, 35° 8' S. 188° 30' W.; 14 Feb. 1770, 42° 34' S. 185° W.; 11 Apr. 1770, 39° 17' S. 204° 6' W. *Garrodia nereis* (Gould).
- Procellaria lugens* (p. 91, ff. 21, 22). Southern Ocean. 1 Feb. 1769, south of Terra del Fuego, 59° S. 3 Mar. 1769, 36° 49' S. 111° 30' W. *Pterodroma inexpectata* (Forster).
- Procellaria melanopus* (p. 85). South Pacific; 3 Mar. 1769, 36° 49' S. 111° 30' W.; (no date), 25° 21' S. 129° W.; 7 Jan. 1770, 35° 6' S. 188° 30' W.; 11 Apr. 1770, 39° 17' S. 204° 6' W. *Pterodroma neglecta* (Schlegel).
- Procellaria oceanica* (p. 55, f. 12). Oct. 1768, Atlantic, 9° 43' S. 23 Dec. 1768, 37° S.; 11 Apr. 1770, 39° 17' S. 204° 6' W. *Oceanites oceanicus* (Kuhl).
- Procellaria pallipes* (p. 71). Southern Ocean; 2 Oct. 1769, 37° 10' S. 171° 5' W. *Adamastor cinereus* (Gmelin).
- Procellaria passerina* (sic) (p. 59). Southern Ocean; 19 Sept. 1769, 29° 10' S., 159° 20' W. *Pelagodroma marina* (Latham).
- Procellaria pelagica* (p. 53). "As *Procellaria pelagica* Linnaeus."
- Procellaria puffinus* (p. 99). Between England and Spain, 7 July 1771. *Puffinus gravis* (O'Reilly).
- Procellaria remigans* (p. 97). Between England and Spain, 7 July 1771. *Fulmarus glacialis* (Linn.).
- Procellaria saltatrix* (p. 49). Southern Ocean; 14 Feb. 1770, 42° 34' S. 185° W. *Garrodia nereis* (Gould).
- Procellaria sandaliata* (p. 89, f. 20). South American Seas; 22 Dec. 1768, 37° S. *Pterodroma incerta* (Schlegel).
- Procellaria sordida* (p. 83). South Pacific. 3 Mar. 1769, 36° 49' S., 111° 30' W.; 21 Mar. 1769, 25° 21' S. 129° W. Pale phase of *Pterodroma neglecta* (Schlegel).
- Procellaria turtur* (p. 65, f. 15). South American Seas. 1 Feb. 1769, 59° S., south of Terra del Fuego. ? *Pachyptila belcheri* Mathews.
- Procellaria vagabunda* (p. 95). Antarctic Ocean. 3 Feb. 1769, 58° 30' S., south of Terra del Fuego; 19 Sept. 1769, 29° 10' S. 159° 20' W.; 11 Apr. 1770, 39° 17' S. 204° 6' W. *Pterodroma lessonii* (Garnot).

- Procellaria veficans* (p. 93). South Pacific. 23 Feb. 1769, 44° 35' S. 109° 2' W.; 3 Mar. 1769, 36° 49' S. 111° 30' W. *Pterodroma externa externa* (Salvin).
- Procellaria velox* (p. 67, f. 16). Southern Ocean. 15 Feb. 1769, 48° 27' S. 93° W. (folio 16); 23 Feb. 1769, 44° 39' S. 109° 2' W.; 3 Mar. 1769, 36° 49' S. 111° 30' W.; 21 Mar. 1769, 25° 21' S. 129° W.; 19 Sept. 1769, 29° 10' S. 159° 20' W.; 2 Oct. 1769, 37° 10' S. 171° 5' W.; 7 Oct. 1769, 38° 59' S. 175° 30' W.; 6 Jan. 1770, 35° 8' S. 188° 30' W.; 14 Feb. 1770, 42° 9' S. 185° W.; 11 Apr. 1770, 39° 17' S. 204° 6' W. This description applies to any member of the subgenus *Cookilaria*, and it seems probable that Solander examined a number of species of the group, and possibly examples of the races of *Pterodroma hypoleuca* (Salvin) as well. The bird figured has the characteristic short bill of *Pterodroma longirostris* (Stejneger); the two birds of October 1770, are stated to have been heavier than the others examined and may belong to *Pterodroma hypoleuca*; the bird from 39° S. 204° W. may be *Pterodroma leucoptera* (Gould); the remainder probably belonged either to *Pterodroma cookii* (Gray) or *Pterodroma longirostris*.
- Sterna nasuta* (p. 103). Tahiti and at sea, near New Holland, 26 May 1770. *Thalasseus bergii* (Lichtenstein).
- Sterna nigripes* (p. 101). Pacific near Otaha (Society Islands), 28 July 1769. ? *Sterna hirundo* Linn.

APPENDIX C

Cook's Itineraries (Cook's names are given in brackets).

THE FIRST VOYAGE

1768

Madeira, 14th–19th September.

Cape Verde Islands. (Cook did not anchor.)

Rio de Janeiro, 14th November–7th December.

1769

Tierra de Fuego

Vincent Bay, 15th January.

Bay of Good Success, 16th–21st January.

Tuamotu Islands, 4th–7th April. (Fishing but no landing.)

Society Islands

Tahiti, 13th April–13th July.

Huahine, 17th–20th July.

Raiatea (Ulietea), 21st–24th July.

Tahaa (Otaha), 28th–29th July.

New Zealand (both islands), 9th October–

1770

–31st March.

Australia (east coast) 29th April–23rd August. (This August day Cook landed on Booby Island, north west of Cape York.)

New Guinea

Cook Bay, north of Cape False, 3rd September.

Savu, 18th–21st September.

Djakarta (Batavia), 11th October–26th December.

1771

Princes Island, 6–15th January.

Cape of Good Hope, 15th March–15th April.

St. Helena, 2nd–4th May.

THE SECOND VOYAGE

1772

Madeira, 29th July–1st August.

Cape Verde Islands

St. Jago, 10th–14th August.

Cape Town, 30th October–22nd November.

1773

Cook sailed south to latitude $67^{\circ} 15'$ on 17th January, that is SSE. of Cape Town, longitude $39^{\circ} 35'$ E. of Greenwich.

New Zealand (South Island only)

Dusky Bay, 26th March–11th May.

Queen Charlotte Sound, 18th May–7th June.

(Captain Furneaux, the *Adventure*.)

Tasmania

Adventure Bay, 11th–15th March.

New Zealand

Ship Cove and Queen Charlotte Sound, 7th April–7th June.

Poverty Bay, 9th–16th November.

Queen Charlotte Sound, 30th November–23rd December.)

Society Islands

Tahiti, 17th August–1st September.

Huahine, 3rd–7th September.

Raiatea, 8th–17th September.

Tahaa was visited by Pickersgill by boat.

Friendly Islands

Eua (Middleburgh), 2nd–3rd October.

Tongatabu (Amsterdam), 4th–7th October.

New Zealand

Queen Charlotte Sound, 2nd–25th November.

In December Cook sailed south-east of New Zealand to latitude $67^{\circ} 5'$ S., and at the end of January 1774, reached the most southerly point of all his voyages, latitude $71^{\circ} 10'$ S., longitude $106^{\circ} 54'$ W.

1774

Easter Island, 11th–16th March.

Marquesas

Sta. Christina, 7th–11th April.

Tuamotu Islands

Takaroa (Tiookea), 17th April.

Society Islands

Tahiti, 22nd April–14th May.

Huahine, 15th–23rd May.

Raiatea, 25th May–4th June.

Palmerston Island, 17th June. (No landing.)

Niue (Savage Island), 20th–21st June.

Friendly Islands

Nomuka (Rotterdam), 27th–29th June.

Fiji Islands

Vatoa (Turtle Island), 2nd July.

New Hebrides

Mallicolo, 22nd-23rd July.

Erromango, 4th August. The Forsters tried to land and caught a watersnake but it seems unlikely that any other collecting was done.

Tanna, 5th-20th August.

Espiritu Santo, 26th August. Two boats landed in the Bay of St. Philip and St. James.

New Caledonia

Cook sailed along the coast 4th September-3rd October. He landed at Balade on 5th September and collections were made during the next eight days.

Isle of Pines, 30th September.

Norfolk Island, 10th-11th October.

New Zealand

Queen Charlotte Sound, 18th October-10th November.

Tierra del Fuego

Christmas Sound, 20th-28th December.

New Year Island, off Staten Land, 31st December-3rd January, 1775.

Mr. Gilbert landed at New Year Harbour, Staten Land.

1775

South Georgia, 17th January. Cook was off the island 16th-24th January.

South Sandwich Islands, 31st January-3rd February. (No landing.)

Cape Town, 23rd March-27th April.

St. Helena, 16th-21st May.

Ascension Island, 28th-31st May.

Azores

Fayal, 13th-19th July.

THE THIRD VOYAGE

1776

Tenerife, 1st-4th August.

Cape of Good Hope, 18th October-30th November. Anderson went up country 16th-20th November.

Prince Edward's Isles, 12th December. (No landing.)

Kerguelen Land (Island of Desolation), 24th-30th December.

1777

Tasmania

Adventure Bay, 26th-30th January.

New Zealand

Queen Charlotte Sound, 12th-23rd February.

Cook Islands

Mangaia, 30th March. (No landing.)

Atiu (Wateooo), 3rd April.

Takutea (Otakootaia), 4th April.

Hervey Island, 6th April.

Palmerston Island, 14th-17th April.

Friendly Islands

Mango (Komango), 29th April. (No landing but rails, pigeons and violet-coloured coots were taken from the natives.)

Nomuka, 2nd-14th May.

Haapai group: Foa, Lifuka (Lefooga), 17th-20th May.

Holeva (Halaiva), 26th May.

Kotu group : Kotu (Kotoo), 2nd-4th June.

Nomuka group : Nomuka, 5th-8th June.

Tongatabu group : Tongatabu, 10 June-10th July.

Eua (Middleburgh), 12th-17th July.

Society Islands

Tahiti, 14th August-30th September.

Eimeo (Moorea or York Island), 30th September-10th October.

Huahine, 11th October-2nd November.

Raiatea, 3rd November-7th December.

Bolabola (Borabora), 8th December.

Line Islands

Christmas or Turtle Island (to be distinguished from Turtle Island, Vatoa, Fiji group),
25th December-2nd January, 1778.

1778

Hawaiian Islands (Sandwich Isles)

Kauai (Atooi), 20th-23rd January.

Niihau (Oneehoeow), 29th January-2nd February.

Nootka or King George's Sound, 31st March-26th April.

Kaye's Island, 11th May.

Sandwich or Prince William Sound, 12th-18th May.

Cook Inlet (Cook's River), 1st June.

Aleutian Islands

Unalaska (Oonalashka), 27th June-2nd July.

Cape Newenham, 16th July.

Bird or St. Matthew Island, 29th July.

Sledge Island, 5th August.

Tschutski country, 10th August.

Furthest north, latitude $70^{\circ} 44'$, 18th August.

Norton Sound, 9th-17th September.

1779

Hawaiian Islands, 25th November, 1778-15th March, 1779.

The ships lay off the islands and traded from 25th November until 6th January when Bligh landed at the southern end of Hawaii. On 16th January they anchored in Kealakekua Bay and made their headquarters there until 4th February when they sailed to a more northerly bay where Bligh landed.. They returned to Kealakekua Bay on 11th February where, three days later, Cook was killed. During the rest of February and in the early part of March they cruised round the rest of the Hawaiian Islands and visited Oahu (Woahoo), Kauai (Atooi) and Niihau (Oneehoe).

Avatcha Bay

Petropavlovsk, 29th April-12th June.

North through Bering St., 5th July.

South through Bering St., 30th July.

Avatcha Bay

Petropavlovsk, 24th August-9th October.

Macao-Canton, 2nd December, 1779-12th January, 1780.

1780

Pulo Condore, 21st-28th January.

Princes Island, 13th-18th February.

Cape of Good Hope, 13th April-9th May.

Stromess (22nd Aug.).

INDEX

Names of birds listed in the appendices are not included in this index.

- Acalanthe*, 307
Acanthisitta, 309, 314, 318
Accipiter, 271, 281
acteon, *Halcyon leucocephala*, 287, 312
acuminata, *Erolia*, 340
acuta, *Anas*, 267
Adamastor, 294, 328
Aechmorhynchus, 332, 333
Aegolius, 322
aenea, *Columba*, 304
aequinoctialis, *Conopodera*, 338, 339
aequinoctialis, *Procellaria*, 275
aequorea, *Procellaria*, 274
Aeruginosus, 271
Aestrelata, 275
Aethia, 328
aethiops, *Rallus*, 303
afer, *Francolinus*, 345
afer, *Sphenaeacus*, 308
afra, *Afrotis*, 303
afra, *Muscicapa*, 308
afra, *Otis*, 303
africana, *Scolopax*, 300
Afrotis, 303
Agapornis, 285, 346
alascensis, *Calcarius lapponicus*, 336
alascensis, *Parus cinctus*, 338, 339
Alauda, 305
alba, *Chionis*, 301, 313, 322
alba, *Crocethia*, 267
alba, *Vaginalis*, 301
alba candida, *Gygis*, 278, 331
albifrons, *Sitta europaea*, 325
albifrons, *Turdus*, 307
albigularis, *Fregetta*, 313
albiventer, *Phalacrocorax*, 277, 297
albus melanorhynchus, *Casmerodius*, 346
Alca, 328, 344
Alcedo, 286, 287, 342
alleni, *Lagopus lagopus*, 266
alpestris, *Eremophila*, 269
alpina pacifica, *Erolia*, 332
americanus, *Buteo*, 271
Anas, 267, 268, 272, 273, 288, 289, 290, 327, 328, 341, 346
anatum, *Falco peregrinus*, 270
Anous, 330
antarctica, *Anas*, 273, 288
antarctica, *Aptenodytes*, 292
antarctica, *Diomedea*, 277
antarctica, *Procellaria*, 294
antarctica, *Pygoscelis*, 292, 321
antarctica, *Thalassoica*, 294, 320
antarcticus, *Pelecanus*, 277
Anthornis, 287, 313, 319
Anthus, 305, 313, 320
antigone, *Grus*, 349
Aphrastura, 309
Aphriza, 332, 333, 340
Aplonis, 285, 306, 314, 320, 323
approximans, *Circus*, 320
Aptenodytes, 290, 291, 292, 314, 329, 341
aquilus, *Pelecanus*, 277
arctica, *Alca*, 344
arctica, *Fratercula*, 344
Ardea, 298, 299, 346
Arenaria, 269
argentatus vegae, *Larus*, 330
argetrae, *Columba*, 304
arminjoniana, *Pterodroma*, 275, 276
arra, *Uria lomvia*, 330
Artamus, 282
assimilis, *Anas*, 290
assimilis haurakiensis, *Puffinus*, 276
assimilis munda, *Puffinus*, 276
ater insularis, *Parus*, 338
atra, *Muscicapa*, 308
atricapilla, *Zonotrichia*, 336
atricapillus, *Accipiter gentilis*, 271
atriceps, *Phalacrocorax*, 297
atricilla, *Anas*, 290
atropurpurea, *Xipholena*, 279
aurantius, *Turdus*, 307
auratus, *Colaptes*, 268
auratus, *Picus*, 268, 325, 343
auriceps, *Cyanoramphus*, 284
australis, *Falco*, 281
australis, *Gallirallus*, 302, 313, 316, 320, 348
australis, *Petroica*, 307
australis, *Phalacrocorax*, 281
australis, *Procelsterna*, 341
australis, *Vini*, 323
avida, *Motacilla*, 279
badius, *Turdus*, 306
bannermani, *Scopus umbretta*, 346
bassana serrat, *Sula*, 278
belcheri, *Pachyptila*, 274, 329
benghalensis, *Rostratula*, 346
bergii cristatus, *Thalasseus*, 341
betula, *Fringilla*, 266
bicincta, *Fringilla*, 308
bisetis, *Psittacus*, 283, 316
Bombycilla, 340
borealis, *Numenius*, 268
borealis, *Somateria mollissima*, 267
borealis, *Tringa*, 332
Botaurus, 270
boulboul, *Lanius*, 282
bresilius, *Ramphocelus*, 279
brevirostris, *Pterodroma*, 276
brunneonucha, *Leucosticte*, 337
Buceros, 343
Bugeranus, 299, 346
bulleri, *Larus*, 298
Buteo, 270, 271
caerulea, *Halobaena*, 275, 292, 321
caerulescens, *Rallus*, 302
caerulescens, *Sporophila*, 279
cafer, *Colaptes*, 325, 343
cafer, *Lanius*, 282
cafer, *Promerops*, 326
cafer, *Rallus*, 302
cafer, *Tantalus*, 300
caffra, *Conopodera*, 286, 311, 319, 335, 343
caffra longirostris, *Conopodera*, 286, 311, 319, 343
caffra, *Cossypha*, 306
cafra, *Scolopax*, 300
Calcarius, 336
caledonica, *Ardea*, 298
caledonica, *Myiagra*, 319
caledonicus, *Corvus*, 285
caledonicus, *Graucalus*, 285, 312, 316, 317
caledonicus, *Nycticorax*, 298
caledonicus, *Platycercus*, 324
Callaeas, 285, 311, 315, 319
calloiope camtschatkensis, *Luscinia*, 335
calvus, *Geronticus*, 300
Calyptorhynchus, 273
camtschatkensis, *Luscinia calloiope*, 335
cana, *Anas*, 289
cana, *Agapornis*, 285, 346
cana, *Casarca*, 289
Canachites, 268
canadensis, *Canachites*, 268
canadensis, *Tetrao*, 268
cancellatus, *Aechmorhynchus*, 332, 333
cancropha, *Alcedo*, 287

- candida*, *Gygis alba*, 278
canescens, *Meliornis novae-hollandiae*, 342
canus, *Larus*, 330,
caparoch, *Surnia ulula*, 267, 322
Capella, 348
capensis, *Anas*, 289, 290
capensis, *Daption*, 295, 320
capensis, *Francolinus*, 303, 345
capensis, *Fringillaria*, 308
capensis, *Procellaria*, 295
capensis, *Scolopax*, 346
capensis, *Tetrao*, 303
capensis, *Turnagra*, 306, 319
Caprimulgus, 349
caprius, *Lampromorpha*, 286
cardinalis, *Certhia*, 288
cardinalis, *Myzomela*, 288, 311, 319
Carduelis, 344
carolinensis, *Anas crecca*, 268
carunculata, *Ardea*, 299
carunculata, *Certhia*, 288
carunculata, *Foulehaio*, 288
carunculatus, *Bugeranus*, 299, 346
carunculatus, *Creadion*, 305, 311, 318, 335
carunculatus, *Pelecanus*, 297
carunculatus, *Phalacrocorax*, 297
carunculatus, *Sturnus*, 305, 335
Casarca, 288, 289
Casmerodius, 346
caudatus melanopis, *Theristicus*, 300, 312, 315, 316, 322, 348
Cepphus, 330
Cercomela, 306
Certhia, 287, 288, 312, 326
cerulea, *Procelsterna*, 341
Chalcites, 286, 314, 317
Charadrius, 301, 333, 334
Charmosyna, 284
Chasiempis, 337
cheneros, *Anas*, 288
chimango, *Milvago*, 272
Chionis, 301, 313, 322, 331, 340
Chloephaga, 288, 320
chloris, *Acanthisitta*, 309, 314, 318
chloris, *Halcyon*, 287
chloris, *Muscicapa*, 308
Chlorodrepanis, 327, 342
chlorophaea, *Certhia*, 312
chloropus sandvicensis, *Gallinula*, 334
chlororhynchos, *Diomedea*, 277, 296
Choriotis, 347
Chroata, 349
chrysocoma, *Aptenodytes*, 290, 329, 341
chrysolophus, *Eudytes*, 290, 341
chrysostoma, *Diomedea*, 277, 296
cincinnata, *Certhia*, 287, 326
Cinclodes, 309
cinctus alascensis, *Parus*, 338, 339
cinerea, *Anas*, 289
cinerea, *Ardea*, 299
cinerea, *Callaeas*, 285, 311, 315, 319
cinerea, *Glaucoptes*, 285
cinerea, *Hirundo*, 310
cinereocephalus, *Psittacus*, 285
cinereus, *Adamastor*, 294, 328
cinereus, *Corvus*, 285, 316
cinereus tannensis, *Poliolimnas*, 303, 313, 317
Circus, 271, 314, 320
cirrhatta, *Alca*, 328
cirrhatta, *Lunda*, 328
citrinella, *Motacilla*, 309
Clangula, 327
coccinea, *Loxops*, 337, 339
coccinea, *Vestiaria*, 327, 342
cocoi, *Ardea*, 299
coerulea, *Ardea*, 299
Colaptes, 268, 325, 343
Colinus, 348
collaris, *Alcedo*, 286
Collocalia, 310, 339
Columba, 278, 303, 304, 305, 334, 347
columba, *Cepphus*, 330
columbarius, *Falco*, 268
Colymbus, 330
Conopodera, 286, 311, 319, 335, 338, 339, 343
cookii, *Pterodroma*, 275
Cookilaria, 275
Coracias, 285
Coracina, 336
cornicoides, *Phoebetria*, 297
cornutus, *Eunymphicus*, 283, 316, 317, 324, 348
coronata, *Columba*, 347
coronata, *Zonotrichia*, 336
Corvus, 285, 316, 324
corythaix, *Tauraco*, 347
Cossypha, 306
crassirostris, *Pachyptila*, 329
crassirostris, *Turdus*, 306
Crax, 348
Creadion, 305, 311, 318, 335
crecca, *Anas*, 268
crepidata, *Procellaria*, 280
crestatus, *Eudytes*, 290, 329
crestatus filholi, *Eudytes*, 329
cristata, *Alcedo*, 342
cristata, *Anas*, 290
cristata, *Fulica*, 345
cristata, *Goura*, 347
cristata, *Otis*, 347
cristatella, *Aethia*, 328
cristatella, *Alca*, 328
cristatus, *Colinus*, 348
cristatus, *Podiceps*, 349
cristatus, *Rallus*, 346
cristatus, *Thalasseus bergii*, 341
Crocethia, 267
cucullata, *Paroaria*, 348
cucullatus, *Charadrius*, 334
Cuculus, 286, 347
curvirostra, *Treron*, 304
curvirostra, *Columba*, 304
cyanea, *Alcedo*, 287
cyaneus, *Circus*, 271, 314
cyaneus hudsonius, *Circus*, 271
cyaneus, *Malurus*, 339
cyanopoda, *Procellaria*, 276
Cyanoramphus, 272, 283, 284, 317, 323
dabbenena, *Diomedea exulans*, 296
dactylatra personata, *Sula*, 298, 330
Daption, 295, 320
Demigretta, 299, 331, 340
Dendrocygna, 290, 346
Dendroica, 266
desolata, *Pachyptila*, 329
dibaphus, *Turdus*, 307
diemensis, *Philemon*, 311, 316, 319
discors, *Anas*, 268
Diomedea, 277, 295, 296, 297, 321, 329
Dissemurus, 324
dominica, *Pluvialis*, 301, 334, 340
dominica fulva, *Pluvialis*, 301, 334
Drepanis, 326, 342
dresseri, *Somateria mollissima*, 267
dubia, *Muscicapa*, 308
Ducula, 304, 318, 334
eburnea, *Pagophila*, 344
eburneus, 344
ecaadata, *Rallus philippensis*, 302
Emberiza, 307, 344
equinoctialis, *Procellaria*, 275
Eremophila, 269
Ereunetes, 331
Erolia, 267, 300, 331, 332, 340
erromangae, *Halcyon chloris*, 312
erubescens, *Phaethon*, 278
erythrocephalus, *Picus*, 343
erythronotus, *Cyanoramphus*, 284
erythroptera, *Columba*, 278, 303
erythroptera, *Gallicolumba*, 278, 303, 313, 334
erythrorhyncha, *Anas*, 289
euchloris, [*Psittacus*], 323
Eudynamis, 286, 317
Eudytes, 290, 329, 341
Eudiptula, 292, 314
Eunymphicus, 283, 316, 317, 324, 348
Euplectes, 307
europaea albifrons, *Sitta*, 325
europaeus, *Caprimulgus*, 349
Eurystoma, 285

- exulans, *Diomedea*, 277, 295, 321, 329
 Falco, 268, 270, 271, 281, 282, 322, 346
 familiaris, *Cercomela*, 306
 fasciatus, *Cuculus*, 286
 fasciatus, *Picoides tridactylus*, 325
 feae, *Pterodroma mollis*, 279, 280
 ferruginea, *Ardea*, 298
 ferruginea, *Columba*, 305
 ferruginea, *Gallicolumba*, 305
 ferrugineus, *Laniarius*, 282
 fiber, *Pelecanus*, 298, 316
 filholi, *Eudypetes cretatus*, 329
 Finschia, 310
 flabellifera, *Muscicapa*, 308
 flammea, *Carduelis*, 344
 flavifrons, *Muscicapa*, 308
 flava, *Motacilla*, 279, 338
 flavifrons, *Zosterops*, 308, 318
 flavirostra, *Limnecorax*, 303
 flavirostris, *Anas*, 273
 flaviventris, [*Psittacus*], 324
 flavolateralis, *Gerygone*, 314, 318
 fontana, *Tetrao*, 345
 formosus, *Dissemurus paradiseus*, 324
 forsteri, *Rallus philippensis*, 302
 Foulehaio, 288
 Francolinus, 303, 345
 Fratercula, 344
 Fregata, 277
 fregata, *Procellaria*, 274
 Fregetta, 274, 312, 313, 315
 Fringilla, 266, 307, 308, 337, 344
 Fringillaria, 308
 Fulica, 345, 347
 fulicarius, *Phalaropus*, 332, 340
 fuliginosa, *Diomedea*, 297
 fuliginosa, *Fregetta*, 312, 315
 fuliginosa, *Nectris*, 276
 fuliginosa, *Procellaria*, 275, 294
 fuliginosa, *Rhipidura*, 308
 Fulmarus, 293, 321, 328, 329
 fulva, *Pluvialis dominica*, 301, 334
 fulva, *Strix*, 282
 fulvus, *Charadrius*, 301
 funerea, *Strix*, 267, 322
 funereus richardsoni, *Aegolius*, 322
 fuscata, *Sterna*, 298, 316, 321, 331, 341
 Gallicolumba, 278, 303, 305, 313, 334
 Gallinula, 334
 Gallirallus, 302, 313, 316, 320, 348
 ganta, *Anas*, 288
 garrula pallidiceps, *Bombycilla*, 340
 gentilis, *Accipiter*, 271
 georgica, *Anas*, 289
 Geronticus, 300
 Gerygone, 314, 318
 gigantea, *Procellaria*, 275, 328
 giganteus, *Macronectes*, 275, 294, 328, 329
 glacialis, *Procellaria*, 293
 glacialis rogersi, *Fulmarus*, 328, 329
 glacialoides, *Fulmarus*, 293, 321
 glareola, *Charadrius*, 301
 glareola, *Tringa*, 333
 glaucodes, *Larus*, 278
 Glaucopis, 285
 glaucopus, *Charadrius*, 301
 globicera, *Columba*, 304
 Glyciphilia, 311, 319
 godeffroyi, *Halcyon*, 287
 Goura, 347
 gracilis, *Anas*, 268
 gracula, *Motacilla*, 309
 grallaria, *Fregetta*, 274
 grallarius, *Falco*, 346
 Graucalus, 285, 312, 316, 317
 gregarius, *Larus*, 278
 griseus, *Puffinus*, 276, 294
 Grus, 349
 grylle, *Colymbus*, 330
 gularis, *Oestrelata*, 295
 Gygis, 278, 331
 haesitata, *Procellaria*, 294, 295
 Halcyon, 286, 287, 312, 318, 325, 326, 343
 Halobaena, 275, 292, 321
 harpe, *Falco*, 281, 282
 harterti, *Falco peregrinus*, 322
 hawaiiensis, *Corvus*, 324
 Hemignathus, 326, 342
 Hemiphaga, 304, 311, 319
 heteroclita, *Muscicapa*, 308
 Heteroscelus, 332, 340
 Himantopus, 346
 Himantion, 327, 342
 Hirundo, 310, 339
 histrionica, *Anas*, 272, 327, 341
 Histrionicus, 272, 327, 341
 hudsonius, *Circus cyaneus*, 271
 hybrida, *Chloephaga*, 288, 320
 hyemalis, *Anas*, 327
 hyemalis, *Clangula*, 327
 Hymenolaimus, 290
 hyperpolius, *Aptenodytes*, 291
 hyperrhina, *Aptenodytes*, 329
 hypoballus, *Dissemurus paradiseus*, 324
 hypoleucos, *Tringa*, 267
 hypopolius, *Psittacus*, 285, 315, 323
 hyuginus, *Psittacus*, 282
 iliaca, *Passerella*, 266
 iliaca unalaschensis, *Passerella*, 336
 incana, *Lichmera*, 312
 incanus, *Heteroscelus*, 332, 340
 incerta, *Pterodroma*, 275, 276, 295
 inexpectata, *Pterodroma*, 276, 294, 295
 inornata, *Aplonis*, 306
 insularis, *Parus ater*, 338
 interpres, *Arenaria*, 269
 Ixoreus, 335
 Jacana, 347
 jacana, *Jacana spinosa*, 347
 jacarina, *Volatinia*, 279
 japonensis, *Falco peregrinus*, 322
 jugularis, *Ardea*, 299
 juliae, *Halcyon chloris*, 312
 Kittacincla, 323
 kori, *Choriotis*, 347
 koroensis, *Prosopeia tabuensis*, 283
 lactea, *Chionis*, 301
 Lagopus, 266
 lagopus, *Buteo*, 270, 271
 lagopus, *Tetrao*, 266
 Lalage, 308, 324, 325
 Lampromorpha, 286
 Laniarius, 282
 Lanius, 282, 325
 lapponicus alascensis, *Calcarius*, 336
 Larus, 278, 298, 330, 344
 lathamii, *Parus*, 338
 lentiginosus, *Botaurus*, 270
 lessonii, *Pterodroma*, 295
 leucaëtos, *Falco*, 281
 leucocephala acteon, *Halcyon*, 287, 312
 leucocephala, *Procellaria*, 295
 leucocephala, *Scolopax*, 346
 leucogaster, *Sula*, 298, 316, 321
 leucophaea, *Collocalia*, 310
 leucophrys, *Anas*, 290
 leucophrys, *Columba*, 303
 leucoptera, *Prosopeia*, 300, 333, 340
 leucoptera, *Tringa*, 300
 leucopus, *Anas*, 346
 leucopygia montrosieri, *Lalage*, 308
 leucorhynchus, *Artamus*, 282
 leucorhynchus, *Lanius*, 282
 leucorodia, *Platalea*, 349
 Leucosticte, 337, 340
 leucurus, *Falco*, 281
 Lichmera, 312
 Limnecorax, 303
 linaria, *Fringilla*, 344
 littorea, *Alauda*, 305
 littorea, *Tringa*, 267
 lobatus, *Lobipes*, 332
 Lobipes, 332
 lomvia arra, *Uria*, 330
 longipes, *Motacilla*, 309
 longipes, *Xenicus*, 309
 longirostris, *Aestrelata*, 275

- longirostris, *Conopodera caffa*, 286, 311, 319, 343
 longirostris, *Pterodroma*, 274
 longirostris, *Tatare*, 286
 longirostris, *Turdus*, 335
 lophyra, *Anas*, 290
 Loxia, 279, 282, 307
 Loxops, 337, 339
 lucidus, *Chalcites*, 286, 314, 317
 lugens, *Procellaria*, 276, 295
 Lunda, 328
 Luscinia, 335, 338
 lutea, *Muscicapa*, 308, 313

 macrocephala, *Petroica*, 307, 337
 Macroneptes, 275, 294, 328, 329
 macroptera, *Pterodroma*, 294, 320
 macroura, *Kittacincla malabarica*, 323
 macroura, *Vidua*, 345, 349
 maculata, *Muscicapa*, 337
 maculipennis, *Larus*, 278
 maculosa tabuensis, *Lalage*, 325
 madagascariensis, *Porphyrion*, 347, 349
 magellanica, *Aptenodytes*, 292
 magellanica, *Motacilla*, 309
 magellanicus, *Pelecanus*, 297
 magellanicus, *Phalacrocorax*, 297, 312, 321
 magellanicus, *Scytalopus*, 309
 magellanicus, *Spheniscus*, 292
 magellanicus, *Turdus*, 279
 magnificens, *Fregata*, 277
 magnificus, *Calyptrorhynchus*, 273
 major minor, *Parus*, 338
 malabarica macroura, *Kittacincla*, 323
 malacorrhyncha, *Anas*, 290
 malacorrhynchos, *Hymenolaimus*, 290
 malayensis, *Dissemurus paradoxus*, 324
 Malurus, 339
 marina, *Pelagodroma*, 274
 marinus schistisagus, *Larus*, 330
 mavornata, *Aplonis*, 306
 melaleuca, *Loxia*, 282
 Melanitta, 269, 341
 melanocephala, *Pionites*, 348
 melanoleuca, *Tringa*, 269
 melanopsis, *Theristicus caudatus*, 300, 312, 315, 316, 322, 348
 melanops, *Glyciphila*, 311, 319
 melanops, *Tantalus*, 300, 315, 348
 melanopus, *Procellaria*, 280
 melanorhynchos, *Phaethon rubricauda*, 278, 330
 melanorhynchus, *Casmerodius albus*, 346
 melanura, *Anthornis*, 287, 313, 319
 Meliornis, 342
 Mergus, 328
 meridionalis, *Nestor*, 285, 315, 317, 323
 meridionalis, *Psittacus*, 285
 Merops, 287, 349
 mexicana, *Loxia*, 279
 migratorius, *Turdus*, 335
 Milvago, 272
 minor, *Aptenodytes*, 292
 minor, *Chionis*, 331, 340
 minor, *Eudypula*, 292, 314
 minor, *Parus major*, 338
 minutilla, *Erolia*, 267, 331
 minutus, *Rallus*, 302
 minutus, *Turdus*, 307, 337
 moestissima, *Fregetta*, 312
 Moho, 326
 Mohoua, 308
 mollis, *Pterodroma*, 279, 280
 mollissima, *Anas*, 267
 mollissima, *Somateria*, 267
 montrosieri, *Lalage leucopygia*, 308
 montana, *Anas*, 289
 montifringilla, *Fringilla*, 337
 Motacilla, 279, 309, 338
 multicolor, *Petroica*, 307, 313, 318
 munda, *Nectris*, 276
 munda, *Procellaria*, 276
 musa, *Oriolus*, 286
 Muscicapa, 308, 313, 337
 Myiagra, 319
 Myzomela, 288, 311, 319

 naevia, *Fringilla*, 308
 naevia, *Muscicapa*, 308
 naevius, *Ixoreus*, 335
 naevius, *Pelecanus*, 297
 namaqua, *Pterocles*, 345
 natka, *Lalage*, 324, 325
 natka, *Lanius*, 325
 Nectris, 276
 Nestor, 285, 315, 317, 323
 niger, *Rallus*, 303
 nigra, *Pomarea*, 308, 313, 314
 nigra, *Porzana*, 302, 314
 Ninnox, 282
 nitens, *Cuculus*, 286
 nitens, *Loxia*, 279
 nivalis, *Emberiza*, 344
 nivalis, *Plectrophenax*, 344
 nivea, *Pagodroma*, 293, 321, 322
 nivea, *Procellaria*, 293
 nobilis, *Moho*, 326
 Nova Seelandia, *Alauda*, 305
 Nova Seelandia, *Anas*, 290
 Nova Seelandia, *Columba*, 304
 Nova Seelandia, *Merops*, 287
 novae-hollandiae canescens, *Meliornis*, 342
 novae-terrae, *Falco*, 271
 novaehollandiae, *Accipiter*, 281
 novaehollandiae, *Coracina*, 336
 novaehollandiae, *Larus*, 298
 novaeseelandiae, *Anthus*, 305, 313, 320
 novaeseelandiae, *Falco*, 281, 282
 novaeseelandiae, *Finschia*, 310
 novaeseelandiae, *Hemiphaga*, 304, 311, 319
 novaeseelandiae, *Ninox*, 282
 novaeseelandiae, *Nyroca*, 290
 novaeseelandiae, *Prothemadera*, 287, 312, 317, 319, 326, 348
 novaeseelandiae, *Thinornis*, 301, 313, 315
 novaeseelandiae, *Cyanoramphus*, 283, 284, 317, 323
 novaeseelandiae saisseti, *Cyanoramphus*, 284
 Numenius, 268, 300
 Nycticorax, 298
 Nyroca, 290

 obscurus, *Hemignathus*, 326, 342
 obscurus, *Pluviorhynchus*, 301
 Oceanites, 273
 ochrocephala, *Mohoua*, 308
 ochrotarsus, *Turdus*, 307
 Oenanthe, 279, 338
 Oestrelata, 295
 olivacea, *Certhia*, 287
 orientalis, *Eurystoma*, 285
 Oriolus, 286
 orix, *Emberiza*, 307
 orix, *Euplectes*, 307
 orix, *Loxia*, 307
 Otis, 303, 347

 Pachycephala, 314, 318
 Pachyptila, 274, 292, 293, 321, 329
 pachyrhynchus, *Eudypetes*, 290
 pacifica, *Coracias*, 285
 pacifica, *Drepanis*, 326, 342
 pacifica, *Ducula*, 304, 318, 334
 pacifica, *Erolia alpina*, 332
 pacifica, *Lalage*, 324, 325
 pacificus, *Histrionicus histrionicus*, 327, 341
 pacificus, *Psittacus*, 272, 283, 284, 323
 pacificus, *Rallus*, 302
 pacificus, [*Turdus*], 324, 325
 pacificus tropicorum, *Psittacus*, 284
 Pagodroma, 293, 321, 322
 Pagophila, 344
 palearis, *Ardea*, 299
 pallidiceps, *Bombicilla garrula*, 340
 palmarum, *Charmosyna*, 284
 palmarum, *Dendroica*, 266
 palmarum, *Psittacus*, 284
 palpebrata, *Diomedea*, 297
 palpebrata, *Phoebastria*, 277, 297, 321
 paradiseus, *Dissemurus*, 324
 paraguaiiae, *Capella*, 348
 Pardalotus, 344
 Paroaria, 348
 Parus, 310, 338, 339
 parvirostris, *Aechmorrhynchus*, 333

- Passerculus, 336
 Passerella, 266, 366
 patachonica, Aptenodytes, 291, 341
 patagonica, Motacilla, 309
 patagonicus, Aptenodytes, 291, 314, 329, 341
 patagonicus, Cinclodes, 309
 pectoralis, Columba, 278, 303, 334
 Pelagodroma, 274
 Pelecanoides, 293, 312
 Pelecanus, 277, 278, 297, 298, 315, 316
 Pennula, 334
 peregrinus anatum, Falco, 270, 322
 peregrinus harterti, Falco, 322
 peregrinus japonensis, Falco, 322
 peregrinus pealei, Falco, 322
 persa, Cuculus, 347
 personata, Sula dactylatra, 298, 330
 perspicillata, Anas, 341
 perspicillata, Melanitta, 269, 341
 peruviana, Hirundo, 310
 peruviana, Vini, 273, 284, 311, 323, 343
 petechia, Dendroica, 266
 petechia, Motacilla, 266
 Petroica, 307, 313, 318, 337
 Phaethon, 278, 330
 Phalacrocorax, 277, 297, 312, 315, 321
 Phalaropus, 332, 340
 Phalcoboenus, 281
 phascas, Anas, 268
 Philemon, 311, 316, 319
 philippensis, Rallus, 302, 313, 317
 Phoebebia, 277, 297, 321
 phoenicurus, Turdus, 306
 pica, Pelecanus, 297
 Picoides, 325
 picta, Anas, 288
 picta, Chloephaga, 288
 Picus, 268, 325, 343
 pileatus, Anous stolidus, 330
 pileolata, Wilsonia pusilla, 338
 Pionites, 348
 piscator, Pelecanus, 298
 Placentia, 271
 planus, Falco, 281
 planus, Polyborus, 281
 Platalea, 349
 platurus, Dissemurus paradiseus, 324
 Platycercus, 324
 Plectrophenax, 344
 Plegadis, 346
 plotus, Sula leucogaster, 298, 316, 321
 Pluvialis, 301, 334, 340
 Pluviorhynchus, 301
 Podiceps, 349
 Poliocar, 285
 poliocephalus xanthopus, Turdus, 307
 Poliolimnas, 303, 313, 317
 pollicaris, Rissa tridactyla, 330
 Polyborus, 281
 Polysticta, 328
 Pomarea, 308, 313, 314
 porphyraea, Columba, 278
 porphyraeus, Ptilinopus, 305, 311, 318
 porphyraea, Columba, 304, 305
 Porphyrio, 347, 349
 porphyrio, Fulica, 347
 Porzana, 302, 314
 Procellaria, 274, 275, 276, 280, 292, 293, 294, 295, 328
 Procelsterna, 341
 profuga, Diomedea, 277
 Promerops, 326
 Prosobonia, 300, 333, 340
 Prosopiea, 282, 283, 323
 Prosthemadera, 287, 312, 317, 319, 326, 348
 psittacea, Acalanthe, 307
 psittacea, Fringilla, 307
 psittacea, Psittirostra, 336
 Psittacus, 272, 273, 282, 283, 284, 285, 315, 316, 323, 324, 343
 Psittirostra, 336
 pteneres, Anas, 289
 pteneres, Tachyeres, 289, 312, 320
 Pterocles, 345
 Pterodroma, 274, 275, 276, 279, 280, 294, 295, 320
 Ptilinopus, 278, 304, 305, 311, 318
 Puffinus, 276, 294, 328
 pulchella, Loxia, 307
 punctatus, Pelecanus, 297, 312, 321
 punctatus, Phalacrocorax, 297, 312, 315, 321
 purpurata, Columba, 278, 304, 305
 purpuratus, Ptilinopus, 278, 304
 Purpureicephalus, 283
 pusilla, Wilsonia, 266, 338
 pusilla pileolata, Wilsonia, 338
 pusillus, Ereunetes, 331
 Pygargus, 271
 pygmaeus, Psittacus, 284
 Pygoscelis, 292, 321
 pyrrhetraea, Tringa, 300, 333, 340
 pyrrholaema, Hirundo, 310
 pyrrhorhyncha, Anas, 289
 Rallus, 302, 303, 313, 317, 346
 Ramphocelus, 279
 rex, Sula serrator, 278
 rhinoceros, Buceros, 343
 Rhipidura, 308
 richardsoni, Aegolius funereus, 322
 Rissa, 330
 rodgersi, Fulmarus glacialis, 328, 329
 Rostratula, 346
 ruber, Sphyrapica varius, 343
 rubra, Crax, 348
 rubricauda melanorhynchos, Phaethon, 278, 330
 rubricollis, Charadrius, 333
 rufus, Selasphorus, 327
 sacer, Halcyon chloris, 287
 sacra, Demigretta, 299, 331
 sacra, Halcyon chloris, 287
 sagittarius, Falco, 281, 346
 Sagittarius, 281, 346
 saisseti, Cyanoramphus novaezelandiae, 284
 sancta, Halcyon, 287
 sancti-johannis, Buteo lagopus, 270, 271
 sandaleata, Procellaria, 275
 sandaliata, Procellaria, 276
 sandvicensis, Gallinula chloropus, 334
 sandwichensis, Chasiempis, 337
 sandwichensis, Passerculus, 336
 sandwichensis, Pennula, 334
 sanguinea, Himantopus, 327, 342
 sannio, Certhia, 287
 santaecrucis, Gallicolumba, 305
 sapphirinus, Psittacus, 284, 323, 343
 schistisagus, Larus marinus, 330
 schlegeli, Eudytes chrysolophus, 290
 Scolopax, 300, 346
 scopulinus, Larus novaehollandiae, 298
 Scopus, 346
 Scytalopus, 309
 sectator, Pelecanus, 278
 Selasphorus, 327
 senegalensis, Alcedo, 287
 serpentarius, Falco, 281, 346
 serpentarius, Sagittarius, 281, 346
 serrata, Sterna fuscata, 298
 serrator, Mergus, 328
 serrator, Sula bassana, 278
 seticauda, Motacilla, 309
 similis, Procellaria, 292
 Sitta, 325
 Somateria, 267, 272
 sordidulus, Turdus, 306
 spadicea, Hemiphysa novaeseelandiae, 319
 spectabilis, Anas, 272
 spectabilis, Somateria, 272
 specularioides, Anas, 290
 Spheaeus, 308
 Spheniscus, 292
 Sphyrapicus, 343
 spinicauda, Aphrastura, 309
 spinicauda, Motacilla, 309
 spinosa jacana, Jacana, 347
 spodiopygia townsendi, Collocalia, 339
 Sporophila, 279
 spurius, Purpureicephalus, 283

- squatarola, *Squatarola*, 301
 stairi, *Gallicolumba*, 305
 stelleri, *Anas*, 328
 stelleri, *Polysticta*, 328
 Stercorarius, 271
 Sterna, 298, 316, 321, 330, 331, 341
 stolidus, *Sterna*, 330
 stolidus pileatus, *Anous*, 330
 striata, *Sterna*, 331, 341
 striatus, *Aplonis*, 285, 314, 320
 striatus, *Pardalotus*, 344
 Strix, 282, 322
 Sturnus, 305, 335
 Sula, 278, 298, 316, 321, 330
 sumatrana, *Sterna*, 321
 superciliosa, *Anas*, 290
 Surnia, 267, 322
 svecica, *Luscinia*, 338
 swindellsi, *Rallus philippensis*, 313, 317
 tabuensis, *Aplonis*, 323
 tabuensis, *Lalage maculosa*, 325
 tabuensis, *Prosopieia*, 282, 283, 323
 tabuensis, *Rallus*, 302, 303
 Tachyeres, 289, 312, 320
 tahitica, *Hirundo*, 310
 tahitiensis, *Numenius*, 300
 tahitiensis, *Scolopax*, 300
 tahitiensis, *Cuculus*, 286
 taitensis, *Eudynamis*, 286, 317
 taitianus, *Psittacus*, 273, 284
 tanensis, *Rallus*, 303
 tannensis, *Poliolimnas cinereus*, 303, 313, 317
 tannensis, *Ptilinopus*, 304
 Tantalus, 300, 315
 Tatare, 286
 Tauraco, 347
 tenuirostris, *Puffinus*, 328
 testacea, *Erolia*, 300
 Tetrao, 266, 268, 303, 345
 Thalasseus, 341
 Thalassoica, 294, 320
 Theristicus, 300, 312, 315, 316, 322, 348
 Thinornis, 301, 313, 315
 Todirhamphus, 325
 toi-toi, *Petroica*, 337
 torquatus, *Charadrius*, 301
 townsendi, *Collocalia spodiopygia*, 339
 Treron, 304
 tridactyla, *Procellaria*, 293
 tridactyla pollicaris, *Rissa*, 330
 tridactylus, *Larus*, 330
 tridactylus fasciatus, *Picoides*, 325
 Tringa, 267, 269, 300, 332, 333, 340
 Trochilus, 327
 troglodytes, *Rallus*, 302
 troile, *Colymbus*, 330
 tropica, *Fregetta*, 274
 tropicorum, *Psittacus pacificus*, 284
 tropicus, *Corvus*, 324
 Turdus, 279, 306, 307, 324, 325, 335, 337
 Turnagra, 306, 319
 turtur, *Pachyptila*, 274, 329
 turtur, *Procellaria*, 274
 tuta, *Halcyon*, 325
 tzitzihua, *Anas acuta*, 267
 ulietensis, *Aplonis*, 306
 ulula caparoch, *Surnia*, 267, 322
 umbretta bannermani, *Scopus*, 346
 unalaschkensis, *Passerella iliaca*, 336
 unalaschkensis, *Hirundo*, 339
 undulata, *Anas*, 289
 Uria, 330
 urinatrix, *Pelecanoides*, 293, 312
 urostigma, *Parus*, 310
 vagans, *Halcyon sancta*, 287
 Vaginalis, 301
 variegata, *Anas*, 288
 variegata, *Casarca*, 288
 varius, *Phalacrocorax*, 297
 varius ruber, *Sphyrapicus*, 343
 vegae, *Larus argentatus*, 330
 velificans, *Motacilla*, 279
 velox, *Procellaria*, 274, 275
 venerata, *Halcyon*, 286, 326, 343
 ventilabrum, *Muscicapa*, 308
 Vestitaria, 327, 342
 Vidua, 345, 349
 viduata, *Anas*, 290, 346
 viduata, *Dendrocygna*, 290, 346
 vigil, *Falco*, 268
 Vini, 273, 284, 311, 323, 343
 virens, *Chlorodrepanis*, 327, 342
 virgata, *Aphriza*, 332, 333, 340
 virgata, *Tringa*, 333
 viridis, *Merops*, 349
 vittata, *Pachyptila*, 292, 293, 321
 vittata, *Procellaria*, 293
 vittata, *Sterna*, 331
 v-nigra, *Somateria mollissima*, 267
 Volatinia, 279
 wiglesworthi, *Todirhamphus*, 325
 Wilsonia, 266, 338
 xanthetreae, *Pachycephala*, 314, 318
 xanthopus, *Turdus poliocephalus*, 307
 xanthorhyncha, *Anas*, 289
 xanthura, *Columba*, 304
 Xenicus, 309
 Xipholena, 279
 youngi, *Halcyon venerata*, 326
 zealandicus, *Cyanoramphus*, 272, 284
 Zonotrichia, 336
 Zosterops, 308, 318

PLATE 35

Accipiter gentilis atricapillus (Wilson), 1812. Young American Goshawk. By Peter Paillou (B.M. 199* B.4, pl. 106). Banks collected this specimen in Newfoundland in 1766.



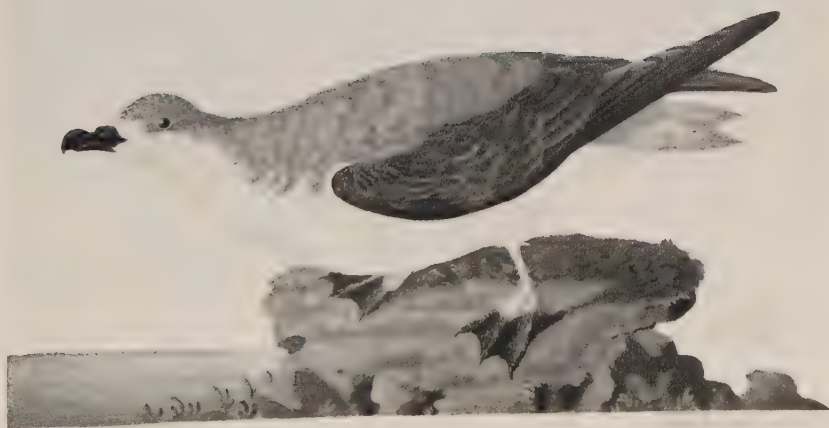
PLATE 36

(a) *Pterocles namaqua* (Gmelin), 1789. Namaqua Sand Grouse. Unsigned. (B.M. 199* B.4, pl. 41). One of a collection of paintings sent to Sir John Pringle by the botanist Masson from South Africa in 1775.

(b) *Pterodroma mollis feae* (Salvadori), 1899. Soft-plumaged Petrel. By Sydney Parkinson. (B.M. 199* B.1, pl. 52). Collected on Cook's first voyage and noted by Banks as "*Procellaria crepidata*".



36a



36b

PLATE 37

(a) *Conopoderas caffra longirostris* (Gmelin), 1789. Long-billed Warbler of the Society Islands. By an unknown artist, on Cook's second voyage. (Royal Scottish Museum M.E. 8.)

(b) (?) *Pachyptila belcheri* (Math.) 1912. Slender-billed Whale-bird. By W. Ellis, on Cook's third voyage, with a sketch of a head of another species. (B.M. (N.H.) Ellis Drawings, pl. 43.)



M. S.
8.

37a



43

37b

INDEX TO VOL. I

Abbott, R. T.	138	Antarctic region	258
Aberdeen	263	Apothecary to the Charterhouse	8
Academy at Leiden	189	<i>Arcana ; or the Museum of Natural History</i>	
<i>Acta Harlem.</i>	212	<i>&c.</i>	134, 135, 138, 139
<i>Acta Helvetica</i>	189, 191, 198	Arctic region	258
<i>Acta Upsaliensia</i>	213, 217	<i>Arctic Zoology, &c.</i>	260
Adams, A.	138	Artedi, P. 189, 191-193, 207-209, 211-217, 222,	
Adams, H.	138	232, 233, 236, 237, 239, 241, 242, 244	
Adams, T.	257	Ashmole, E.	6
Adelaide	257	Ashmolean Museum	6-7
Admiralty Island, New Guinea	167	Asia	332
<i>Adventure</i>	82, 89, 285	Asia, eastern	56
Adventure Bay	339	Asia, northern	300
Africa	89	<i>Assistance</i>	27
Aiton, W.	81, 263	<i>Astrolabe</i>	51
"A.L." [i.e. Anna Lister]	6-7	Atlantic Ocean	259, 269
Alaska	300	Atiu	331
Alaskan birds	325	Atkins, Mrs., née Children	148
Albemarle, Duke of <i>see</i> : Monck		Auckland	97
Aleppo	189	Austin, O. L.	268
Allen [i.e. Allan, J.],	91, 102	Austral Group	274
Allen, D. G.	300	Australia	81, 100, 102, 125, 138, 274
Allen, Mrs. E. G.	257, 269	Australia, east coast of	90, 91
Amadon, D.	283, 284, 303, 305, 335	Australia, mainland	339
America	27, 35, 147, 200, 332	Australia, north	105, 106
America, Atlantic coast of	109	Australia, north-west coast of	90
America, north	124	Australia, south-western	283
America, north-west coast of,	108	Australian birds	304
America, west coast of	329	Australian museum	255, 257, 260, 310
American specimens	228	Australian museum series	315
Ammani, P.	202	Australian oyster	100
Amsterdam	224, 265	Australian pearl fisheries	99
Amsterdam, island	274	<i>Australian Seashore etc.</i>	100
Amsterdam, Rijksmuseum	264	Australian shells	91
<i>Analyst.</i>	165	Azara, F. de	272, 279
Andalusia	11		
Anderson, Betty	261	Backer, Dr. C. A.	51
Anderson, Rabina	261	Baden	190
Anderson, Robert	260	Bahama Islands	5
Anderson, W.	257, 258, 260-262	Baker, J. G.	264
[biographical note]	310, 338, 341, 342, 344	Bakhuizen van den Brink, Dr., C. R.	68
[manuscript]	312, 332, 338	Bali Island	56
animal drawings,	255	Banks, Sir Joseph 12, 52, 71-116, 124, 125, 131,	
<i>Animal Kingdom</i>	11	194, 195, 197, 257-258	
animals collected on Cook's first voyage	256	[biographical note]	310, 345-347
<i>Annales des Voyages</i>	52, 67 fn.	Banks, birds collected in Newfoundland and	
<i>Annals of Philosophy</i>	129, 158	Labrador, Appendix A.	357-359
Annasley, George, Viscount Valentia, after-		Banks, bird paintings in the library of,	253-371
wards 2nd Earl of Mountnorris	137	Banks, bird paintings, general note on	265
Anson, G.	175	Banks, collection 33, 98, 139, 169, 278, 285, 300,	
Anson's voyage	175	301, 304, 307, 309, 310, 324, 332, 337, 340, 341,	
Antarctic Ocean	293, 297	343	

- Banks Correspondence* 52
Banks diary 257
Banks Endeavour diary 359
Banks Journal 90, 93, 94, 97, 100, 107
Banks library 82-84, 255, 262
Banks library catalogue 255, 262
Banks Newfoundland notebook 255
Banks shell and insect collections 72
Banks shell collection, descriptive catalogue
. 90-116
Banks shell collection, contributors to 88-89
Banks shell collection, historical back-
ground 79-81
Banks shell collection, origin and descrip-
tion 71-74
Barbados 6, 27, 101
Barrier Reef 99, 100
Barrington, Shute, Bishop of Durham 176
Bartram, J. 10, 110, 200, 202
Basire, J. 11
Baster, J. 212
Bay of Gold Hope 325
Bay of Naples 89
Beaglehole, J. C. 262 fn.
Beaufort, L. F. de 227
Beauvois, P. de 53
Beck, R. H. 333
Belcher, Captain 304
Bell, T. 72
Beloe, W. 177
Bennet, Charles, 4th Earl of Tankerville
. 12, 76, 169
Bennett, Mr. [of Rotterdam]. 196
Bennett, F. C. 310, 341
Bering Straits, 328
Berlin 280
Berlioz, Prof. 254
Berne 262
Betap 305
Bibliographical Decameron 177, 178
Bibliotheca Botanica 189
Bibliotheca Regni animalis 189
Birckhead & Ripley 304
Binsey, near Oxford 176
Birch, J. Q. 136
Bird Island 328
bird drawings 261
bird paintings 261
bird paintings, material and sources 255-257
Birds of Australia 256, 359
birds collected by Banks in Newfoundland
and Labrador 266-272
birds from Cook's first voyage 272-280
birds from Cook's second voyage 280-310
birds from Cook's second voyage, painted
by unknown artist 310-322
birds painted on Cook's third voyage 322-339
birds painted on Cook's third voyage by
John Webber 339-344
birds painted by Col. Gordon, acquired by
Francis Masson 345-347
birds painted by D'Auvergne and Miller on
Phipps's voyage 344
birds painted by unknown artist 310
Bischoff, F. 300
bivalve shells from the coast of India 9
Blacker library 259
Blainville, H. M. D. de 147
Bloch, M. E. 194, 211, 228, 237, 243, 245, 258
Blomefield collection 282
Bloomsbury 256
Bockland Mts. 263
Boddaert, P. 191, 192, 194-196, 201, 223, 224
Bodleian Library 6
Boerhaave, H. 189
Bonaparte, C.L.J.L. Prince of Canino 359
Bonelli, F. A. 129
Book of Benefactors 7
Boston 147
Borlase, W. 202
Born, I. von 13, 44, 109
Boswell, J. 80, 261
Botanical Department, South Kensington
. 259, 264
botanical drawings 263
botanical notebook 257
Botany Bay, 98, 99, 102, 106
Botany Library 257
Boudin's voyage 274
Bougainville, L. A. de 273, 291
Bourne, Dr. W. R. P.
. 255, 264, 274, 276, 280, 312, 359
Boussole 51
Bowdich, Mrs. Sarah 131 fn.
Bowdich, T. E. 131 fn.
Boys, W. 84
Brander, G. 81, 83, 138
Brandt, J. F. 291
Brant, C. 264
Brant, Mrs. 264-265
[biographical note] 347, 349
Brazil 234
Brazilian shells 91
Bristol, Lord see : Hervey
Bristol merchants 10
British coast 115
British factories 9
British Government 264
British Museum 4, 5, 9, 124, 132, 138, 147, 157
. 166, 168, 175-177, 187, 191, 197, 255, 256, 259,
. 272, 275, 281, 292, 294-296, 303, 305, 324, 333,
. 337, 338, 341-343
British Museum collection 11, 110, 169
British Museum (Print Room), 254, 255, 257,
. 259, 261-264, 279, 310, 313, 314, 339, 344, 345
British Museum (Natural History) 6, 12, 44, 51,
. 131, 132, 187, 197, 254, 257, 259, 261, 264
British navy 52
British Zoology, The 113, 260, 349
Britten, J. 259, 264

Brock, Liesbeth van der 246
 Broderip, W. J. 12, 76, 78, 86, 135, 136, 169
 Broderip collection. 76
 Broken Bay 99
 Broome 99
 Broussonet, P. M. A. 195
 Brown, P. 287, 326, 348
 Brown, R. 56
 Brown, S. 9
 Browne, P. 231
 Bruguière, J. G. 77, 85, 87, 95, 106, 107
 Brunn, A. 216
 Brunnich, M. T. 202
 Bryan & Greenway 337
 Bullock, W. 78, 137
 [sale catalogue] 74
 Bullock's Museum 328
 Bullock shell collection 137
 Buenos Aires 273
 Buffon, G. L. L. de 273
 Buonanni, F. 7
 Burroughs, A. 265
 Burrows, E. J. 135
 Busby, R. L. 139
 Bustard Bay 99
 Bute, Lord *see* : Stuart
 Bylaert, J. J. 197, 198, 229
 Byres, architect 89
 Byron, The Hon. John 76, 88, 99, 124

Cain, A. J. 283, 285
 California 109
 Calonne, Prince 77, 125
 Calonne catalogue 84, 133, 139, 170
 Calonne collection 76, 86, 125, 134, 169
 Calonne sales. 74, 76, 77, 86
 Calonne shells 169, 170
 Calonne specimens 125, 169, 170
 Camelli (or Father Kamel) 9
 Cameron, Dr. C. 79, 80, 90, 259
 Canada 257
 Cape birds, painting of 299
 Cape of Good Hope
 9, 263, 285, 286, 296, 325, 345-347

Cape Horn 294, 295
 Cape Howe 90, 98
 Capetown 264, 299, 303
 Cape Verde Islands 279, 287
 "CAR" 9
 Cardevacque, A. de 51
 Caribbean 12 fn.
Carmina Quadragesimalia 177
 Carolina 5, 9, 10, 109, 218
 Carolina collection 220
 Carolina, Garden's collection from 206
 Carolina specimens, 220
 Carpenter, P. P. 158
 Cartwright, G. 257
Cat. Bibl. Hist.-Nat. J. Banks , 256

Catalogue of Bird in the British Museum 255
Catalogue of Fishes 187, 192, 213
Catalogue of the Library, British Museum
 (Natural History) 256, 259
Catalogue of Mollusca in the British Museum 12
Catalogue of Shells of Dorset 83
 Catalogue of the Sloane Shell Collection 13-44
 Catesby, M. 5, 10, 34, 35, 213, 231
 Cavendish-Bentinck, Margaret, Duchess of
 Portland 74, 76, 83, 85, 88, 113, 114, 115,
 124, 125

Cavendish, Lord Charles 176
 Cayenne 343
 Charleston 109
 Charlton, Mr. [i.e. Courten, William] 5, 22
 Charter Book of the Royal Society of
 London 133
 Chateau Bay 266, 267, 268, 270, 271
 Chatham Islands 301, 303
 Chancey, Dr. 85
 Chemnitz, J. H. 10, 96, 133, 168, 169
 Chenu, J. C. 139
 Children, Anna 148
 Children, J. G. 11, 44, 128, 129, 136, 146-148
 156, 167

Children's catalogue 130
Children's Lamarck 146-148
 China 9
 Christ Church 176
 Christmas Harbour 331
 Christmas Island 278, 331, 338, 341
Cimelia Physica 263, 344
 Clarke, W. 178
 Clayton collection, 202
 Clench, W. J. 87
 Cloudy Bay 78
 Colchester 97
 Colden, C. 202
 Collins, C. 259
 Collinson, P. 10, 191, 199
 Combe, Dr. 6
 Commerson, P. 273, 291
 Commerson-Sonnerat manuscript 254
Conchologia Iconica 10, 136, 169
Conchological Dictionary 84
Conchologist, The 8 fn.
 "Conchology" 133

Conchology, or the natural history of shells :
 etc. 10, 134-139
 Conchology, system of 13
 Cook, James 71, 74, 79-82, 85, 86, 88-91, 98,
 99, 102, 108, 124, 258, 262, 283, 291, 302, 310,
 312, 331, 339-341, 343
 Cook's diaries 261, 360
 Cook's *Journal* 90, 91, 94, 259, 278, 280
 Cook's voyages 98, 254, 303
 Cook's first voyage. 74, 79, 107, 255, 259, 314
 Cook's second voyage
 89, 95, 113, 161, 255, 256, 260, 310, 314, 330,
 348

Cook's third voyage . . . 108, 161, 255, 260,
262, 265, 304, 322, 337, 339
Cook's second & third voyage, catalogue of
birds 359
Cook Islands, 306, 341
Cook group 331
Cook, Mrs., née Batts 310
Cook & King 336
Coombe, Dr. 137
Coombe shell catalogue, 137
Cooper, Mrs. 338
*Copenhagen Decision on Zoological Nomen-
clature* 87
Coromandel Coast 111
Courageux 89
Courten, W. 5, 7, 12, 20, 21, 22, 42
Cracherode, The Rev. Mordaunt
12, 77, 85, 86, 116, 123-174, 175-178
[biographical note]
Cracherode bequest 77
Cracherode collections 175-178
Cracherode collections of minerals, fossils,
shells, corals and echinoderms . . . 125-126
Cracherode library catalogue 132
Cracherode manuscript catalogue 123, 131-134
Cracherode priced MSS. catalogue . . . 116
Cracherode shells 77
Cracherode shell collection, general account
125-131
Cracherode shell collection, origin and
growth 123-125
Cracherode specimens 175
Cracherode specimens figured by J. G.
Children 150-161
Cracherode specimens figured by W. E.
Leach in *Zoological Miscellany* . . . 140-161
Cracherode specimens figured by W. Wood
in the *Supplement to the Index Testace-
ologicus* 161-169
Cracherode specimens originally in the
Calonne collection 169-175
Cracherode collection, use made of . . . 134-140
Cracherode, Ann 177
Cracherode, Mary, née Morice 175
Croft-Murray, E. 254, 259
Croque 266, 267, 271, 280
Crouch, E. A. 147
Cuming, H. 78
Cuming collection 96
Cunningham, J. 9, 39, 298
Cuvier, G.L.C.F.D. 11, 77, 131 fn., 192, 291
Cuvier & Valenciennes 227, 231

d'Annone, J. 202
Da Costa, E. M. 4, 6, 10, 22, 44, 98, 115
Dakin, W. J. 100
Dall, W. H. 77, 87, 109, 169, 170
Dalrymple, Sir David, (Lord Hailes) . . 261
Dampier, W. 9, 10, 34, 44, 100

"Dampier's 2nd circumnavigation" . . . 10
Darwin 99
Daubenton, L. J. M. 273
D'Auvergne, Philip duc de Bouillon 262-263
[biographical note] 344
Dautzenburg, P. 107
Dawson, W. R. 264
Decades 22
De Cochleis 8 fn.
Delfos, A. 197, 198
Deligny, M. E. 51, 52
Dempster, G. 261
De Noronha or Noroña 52
Department of Botany, British Museum
(Natural History) 259-264
Department of Geology 6, 12
Department of Minerals 131
"Department of Natural History and
Modern Curiosities" 10
Department of Zoology 131, 187
Derby, Lord see : Stanley
Deschamps, L. B. 51-67
Deschamps, itinerary of travels in Java 53-54
Descriptions Animalium, etc. 260-280
Descriptive Catalogue of the British Testacea 84
Descriptive Catalogue of Recent Shells, A 84-85
Deshayes, G. P. 82, 136, 166
Des Murs, M.A.P.O. & Verreaux, J. . . . 284
Dictionary of National Biography . . . 262, 265
*Dictionnaire biographique du Département
du Pas de Calais* 51
Dibdin, T. F. 177, 178
Dielen, van 194, 195
Dighton, R. 177
Dillwyn, L. W. 42, 84, 85, 87, 88, 90, 95, 96,
101, 104, 105, 106, 107, 109, 135, 138, 140
Discovery 108, 262
Dissertation sur le Sinus Itius 52
Dodge, H. 92, 93, 102, 104, 105, 110, 111
Dolphin 88, 89
Donovan, E. 11, 85, 98, 99
D'Orcy, Gigot 278
Dorsetshire Catalogue 113
Downing 260
Drury, D. 89
Dryander, J. 81, 85, 255, 256, 262, 265, 266,
270, 280, 289, 347-349
Dubois, C. 147
Duchess 34
Dufresne, L. 129
Duke 34
Dürer, A. 176
Dusky Sound 287, 288, 290, 298, 301, 305, 308
Dutch East India Company 8, 264
Dutch East Indies 190
Dutch Society of Science at Haarlem . . 191
Dutch vernacular names 201
Dwight, J. 278
Dyer, R. A. 264
East India Company 9, 35

- East Indies 88, 263
 East and West Indies 8
 Edinburgh 311
 Edinburgh collection 316
 Edinburgh, University of 255, 261
Edinburgh New Philosophical Journal 261
 Edinburgh University Museum 282
 Edmonds, J. M. 6
 Edridge, H. 178
 Edwards, E. 77, 177
 Edwards, G. 5, 272, 275
 drawings 322
 Ehret, G. D. 257
 Eimeo (Moorea) 304, 333, 343
Elements of Conchology 131 fn.
 Ellis, J. 75, 79–81, 88, 109
 Ellis, W. 255, 256, 262
 [biographical note] 278, 282, 283, 294, 300,
 304, 315, 322, 324–326, 328, 329, 330,
 332–334, 337–341
 manuscript 324
 Elmsley, P. 176
 Empson, J. 4
 Emuy 9
Encyclopaedia Londinensis 133
Endeavour 71, 73, 74, 79, 80, 82, 90, 91, 95,
 97–99, 107, 259, 264, 276 294, 298
Endeavour, diary 258
Endeavour material 79–80
Endeavour shells 91–108
Endeavour River 75
 Engel, H. 202, 246
 England 27, 39, 102, 147, 281
 English Channel 52
 Entrecasteaux, J. A. Bruni d' 51
Epitome of Lamarck's Arrangement of
 Testacea, An 147
 Erromanga 312
 Espiritu Santo 305
 Eua, Tonga 282, 283, 288
 Eua (Middleburgh) 323
 Europe 102, 200, 325
 Evans, Dr. J. 255
 Evans & Wilson 326, 327, 334, 336, 337
 Evelyn, J. 5
 Evermann & Jordan 221, 222, 231, 235, 246
 Ewan, Prof. J. 255
Exercitatio Anatomica 22
Exotica 8 fn.
Extinct Birds 302, 333
Extrait d'un voyage inédit dans l'intérieur de
 l'Isle de Java 67 fn.
 Fabricius, J. C. 258
 factories, British 9
 Falkland Islands 291, 295
 Falkland Islands, East 295
 Falla, Dr. R. A. 255, 274, 277, 290, 329
 False Bay 264
 Fan Mussel 11
 Faujas de Saint-Foud, B. 52
Fauna Suecica 218, 219, 232
 Ferguson, R. 52
 Férussac, A. E. J. P. J. F. d'Audebard de 129 fn.
 Fiji 283
 Fijian islands 288
 Finlayson, C. P. 255, 261
 fishes, paintings of 260
 Flora of Java 51–68
Flora Javanica 55
Flora Orientalis 189
Flora Virginica 189
 Florida 87, 109
 Forster, J. G. A. 86, 89, 255–260
 [biographical note] 261, 269–347
 Forster's paintings 280
 Forster's unpublished drawings 280
 Forster, J. R. 89, 258–260
 [biographical note] 281, 360
 Forster MSS. 294
 Fort St. George (Madras) 9
Fossilia Hantoniensia 81, 83
 Fothergill, Dr. J. 74, 75, 89, 124
 Fothergill collection & catalogue 125
 France 291
 Fraser-Brunner, A. 209, 210, 224, 236
 French Bay 295
 Friedmann, H. 271, 322
 Friendly Islands 95, 96, 303, 323
 Friendly Islands, natives of 158
 Fries, R. E. 258
 Furneaux, T. 82, 89, 113, 285
 Gadow, H. 287, 311
 Gage, A. T. 87
 Gainsborough, T. 265
 Garden, Dr. A. 109, 200, 220–222
 Garden's collection 206, 222, 245
 Garden specimens 228
 Garnot, P. 295
 Gatliff, J. H. 136–138
Gazophylacium Naturae et Artis 8, 22, 44
Genera of Birds 349
Genera of Shells 11, 129, 146
General Account of the Hunterian Museum,
 Glasgow 75
General Conchology 157
General History of Birds 258
General Synopsis of Birds 254, 258
Gentleman's Magazine 177, 262, 264
 George III (H.M.) 90, 260, 263, 326, 342
 Glasgow 259
 Glasgow, University of 75
 Gmelin, J. F. 13, 44, 81–84, 98, 108, 128, 133,
 168, 194, 202, 203, 211, 238, 244, 254, 258,
 269–271, 282, 284, 288, 301–309, 324, 327,
 331–337, 346, 360
 Gmelin names 128
 Godman, F. Du Cane 256, 295
 Goodall, Dr. J. 78

- Goodall, shells 78
 Gordon, R. J. 263-264
 [biographical note] 345
 Gordon, Mrs. 264
 Göttingen Museum, 326, 342
*Göttingisches Magazin der Wissenschaften und
 Litteratur* 288, 327
 Gough Island 274
 Gould, A. A. 147
 Gourlie, Nora 258
 Governor of Jamaica 26
 Granada 89
 Grant, C. H. B. 255
 Gray, Dr. E. W. 128, 132, 133, 138, 169
 Gray, manuscript catalogue 170
 Gray, G. R. 277, 280, 291
 Gray, J. E. 11, 12, 43, 44, 97, 106, 128-139,
 156-159, 164-169, 187, 188, 191-194, 197, 199,
 201, 202, 209, 211, 215, 220, 230, 235, 236, 256,
 310, 359
 Gray collection 96, 129, 158
 Gray, Mrs. 131, 166
 Great Barrier Reef 102
 Great Wymondley 176
 Greenwood, J. 265
 [biographical note] 347, 348
 Greenway & Bryan 337
 Griffith, E. 11
 Griffith, Moses 270, 271
 Grissée 53, 54
 Guinea 89
 Gronovius, L. T. 187, 188-191
 [biographical note] 192-246
 Gronovius, collection of fishes 199-202
 Gronovius collection of fishes, systematic
 catalogue 202-246
 Gronovius collection on view 190
 Gronovius and contemporary ichthyology
 191-193
 Gronovius fishes 193-197
 Gronovius letters 197
 Gronovius manuscript 197-199
 Gronovius, Anna Apollonia, née Verbeck 190
 Gronovius, J. 188
 Gronovius, Johanna Susanna, née Alensoon 189
 Gronovius, J. F. 188
 Gronovius, J. 188
 Gronovius, S. U. 190
 Gunther, Dr. R. T. 6, 7, 21, 22, 166, 187, 191,
 192, 199 fn., 201, 203, 209, 211, 213-215, 218,
 222-224, 227, 228, 236, 242, 245

 Hailes, Lord *see* : Dalrymple
 Hakluyt Society 254, 259, 278, 280
 Hamilton, Sir William 89
Handbuch der Systematischen Weichtierkunde
 13 fn., 91, 140
 Handisyd, Mr. 9, 34

 Hanley, S. 13, 42, 43, 73, 87, 92, 93, 104, 105,
 110, 136, 157, 158
 Hanley collection 72
 Hanley's main collection, sale of 73
 Hantum 263, 346
 Harlock, Mr. 125
 Harrison, J. 263
 Hart, Emma 89
 Hartert, E. 310
 Harvey, H. 73
 Hasselquist, F. 207, 236
 Hauraki Gulf 97
 Hawaii, 324, 334, 337
 Hawaiian birds 262
 Hawaiian collection 327
 Hebenstreit, J. E. 200 fn.
 Hedley, C. 136, 137, 138
 Hellmayr, C. E. 338
Herbarium Amboinense 55
 Hercules Club 102
 Hermann, Dr. H. J. 9, 98
 Hervey, Rt. Rev. Frederick Augustus, 4th
 Earl of Bristol 125
 Hibbard, M. 255
 Higgins, L. G. 188, 191
 Hildebrand & Meek 225
 Hindus 56
 Hindwood, K. A. 341
*Histoire Naturelle des Animaux sans
 Vertèbres* 129, 146, 147, 149
Historia Conchyliorum, 5-8, 13, 22, 34, 35,
 44, 85, 148
Historiae Naturalis, 190
Historia Naturalis Piscium 192, 195
*History of the Collections contained in the
 Natural History Department of the British
 Museum* 72, 254, 256
 History of Japan 8, 34
History of North American Ornithology 257
History of Quadrupeds 265
 Hodges, C. H. 298
 Hodgkinson Banks. 259
 Hoey, C. van. 202
 Holland 55, 189
 Hooker, J. D. 258, 280
 Hopwood, A. T. 136, 138
 Horsefield, T. 56
Hortus Kewensis 81
 Huahine 286
 Huddesford, W. 5, 6, 8, 22, 85
 Hudson's Bay 88, 270, 322
 Hudson Bay Company 269
 Hudson Strait 270
 Hughes, Sir Edward 88
 Humphrey, G. 10, 76, 77, 83, 85, 88, 95, 99, 101,
 102, 106, 107, 113, 116, 124, 126, 131-134, 137,
 139, 167, 169, 170
 Humphrey's catalogue 74, 76
 Humphrey's collection 102
 Humphrey's collection, sale of 78

- Humphrey's shell collection 137
 Hunter, J. 124
 Hunter, William 75, 124
 Hunterian Museum 75
 Hutchinson, J. 263, 264
 Hutton, F. W. 298
 Hwass, C. H. 77, 85, 87

 Iceland 80, 263
Ichthyologi Theoretici 191
 Identification of Javanese plants . . 55-68
Illustrated and Descriptive Catalogue of
bivalve Shells, An 43
Illustrated Introduction to Lamarck's Con-
chology, An 147
Illustrated London News 300
Index Animalium 158
 index of bird names 366-371
 index to birds described by Solander from
 Cook's first voyage. Appendix B. . 359-365
Index [Hist. Conch.] 85
Index Lapidææ 202
Index Ornithologicus 258
Index Testaceologicus
 II, 43, 87, 128, 157, 158, 161
 India 9
 India Company, Governors of 202
 India House 52
 Indian Ocean 296
 Indo-Pacific 105, 227
 Indo-West Pacific 99
 Indonesia 107
 Iredale, T. 81, 87, 91, 99, 100, 105, 169, 254,
 259, 310, 318-320
 Iredale & Mathews. 138, 291, 296
 Island of Ascension 93
 Island of Chusan 9
 Island of Desolation 328
 Isle of Pines 320
 Itinerary of Deschamp's travels in Java 53-54

 Jackson, C., Dean of Christchurch . . 176
 Jackson, J. W. 40, 103, 169
 Jacquin 196, 202
 Jacobs, R. 9
 Jamaica 8, 9, 27
 Japan 8, 34, 102, 322
 Jardine & Selby 282
 Java 51, 55, 56
 Java, Central-East 56
 Java, East 56
 Java, West 56
 Jennings, H. C. 137
 Jennings, shell collection 137
 Jersey 263
 Johnson, S. 80
 Johnston, G. 129 fn.
 Johnston, T. 265
 Jones, Rev. H. 9
 Jordan, D. S. 192, 215, 236

 Jordan & Evermann 221, 222, 231, 235, 246
 Jossigny, P. 291
Journal of Botany 52
Journals of Captain James Cook . . . 262
 Journal of the Royal Society 22
Journal of . . . Sir Joseph Banks . . etc. . 80
Journal of a Voyage to the South Sea. . 75
 Juan Fernandez 274, 275
 Jukes-Brown, A. J. 166
 Junge, Dr. C. A. 254
 Junghuhn, F. W. 56

 Kaempfer, Dr. E. 8, 34
 Kamel, Father, or Camelli 9
 Kamtchatka 330
 Karlsruhe 190
 Kendal 53, 54
 Kennard & Woodward 147, 148
 Kennard, Salisbury & Woodward . . 148-149
 Ker, I. B. 264
 Kerguelen Land 328, 329, 331, 340, 341
 Kew Gardens 81, 263
 Kilburn, K. 246
 King, J. 106
 King & Cook 336
 King George's Sound or Nootka Sound
 108, 325, 343
 Kinnear, Sir Norman 254, 261, 263, 282
 Kircher, A. 82
 Klein, J. T. 82, 191
 Knorr, G. W. 10
 Kodiak Island 322
 König [i.e. Koenig, C.D. E.] 11
 Koenig [i.e. König, J. G.] 89, 111
 Koro, island of 283
 Kramer, W. 202, 219
 Kuhl, H. 254, 258, 274, 276, 359, 360

 Labrador 89, 256, 257, 259, 266-270
 La Coquille 287, 295
 Lakenhal Museum, Leiden 198
 Lamarck, Cornélie 148
 Lamarck, J. B. P. A. de Monet de II, 13, 44,
 77, 90, 128, 129, 135, 136, 138, 146-149, 157,
 166, 168
 Lamarckian names. 130, 157
 Landon, S. 9
 La Pérouse, J. F. de Galaup 51
 "La Petite Perruche d'Otahiti" 273
La Recherche 51
 "lark of St. Julian's Isle" 270
 Latham, J. 137, 195, 254, 257, 258
 [biographical note] 269-273, 278-312, 322-
 327, 330-339, 342-348
 Latham shell collection 137
 Lauraguais, L. L. F., comte de, duc de
 Brancas 79
 Laurenti, J. N. 40
 Lawson, I. 189

- Leach, Dr. W., 11, 12, 40-42, 44, 77, 85, 86, 126
 128, 130, 139, 146, 167, 168
 Leadbeater, B. 282
 Lebour, M. V. 115
 Leicester Square 76
 Leiden 188, 189
 Leiden, Academy of 189
 Leiden, Lakenhal Museum 198
 Leiden Museum
 254, 264, 304, 325, 326, 334, 340
 Lennox, Charles, 3rd Duke of Richmond
 and Lennox 11
 Lesson, R. P. 287
 Lettsom, Dr. J. C. 137
 Lettsom shell collection 137
 Lever, Sir Ashton 77, 78, 138, 195
 Lever Catalogue 74
 Leverian Museum 77, 108, 273, 276, 278,
 281-297, 302, 304, 305, 307, 309, 323, 326, 327,
 331, 334-344
 Lhwyd, E. 7, 21, 22
 Lichtenstein, M. H. C. 260, 280, 282
Life of Nelson 263
 Lincolnshire 81
 Linnaeus, C. 13, 42, 44, 72, 79, 80-82, 89, 90, 98,
 102-104, 110, 111, 115, 128, 130, 133, 137, 138,
 148, 157, 168, 188-192, 200, 206-228, 230-244,
 246, 275, 280, 298, 325, 327, 332
 Linnaeus, C. jun. 86-87
 Linnean cabinet 104
 Linnean collection 93, 242
 Linnean names 128, 130, 157
 Linnean Society of London
 71, 85, 116, 157, 197, 218
 Linnean Society's collections 71-73, 85
 Line Island 330, 341
List of Modern Names 88
 Lister, Anna 5, 44, 148
 Lister, Martin 5-7, 13, 20-22, 27, 34, 35, 42, 44,
 82, 85, 102, 109, 110, 148, 168
 Lister's collection 7
 "Lister MS. 9" 6
 Lister, Susanna 5-7, 44, 148
Lithophylacium 190, 197, 202
 Lodge, G. E. 333
 Lohmann, B. 327
 London 311, 348
London Medical Repository 129
 London sale 193
 Long Acre, No. 48 76
 Lönnberg, E. 209, 226, 227
 Lord Howe Island 274
 Lowe, P. R. 333
 Loyalty Group 324
 Luzon, Philippine Islands 134
 Madras 9
Magazine of Natural History 130, 131 fn., 164
 Mainz 89
 Malacca 102
 Malekula 312
 Malte-Brun, E. 52, 67 fn.
 Manchester Museum 169
 Manila 9
 Manning, T. H. 266
Manual of Conchology 147
 manuscript, Commerson-Sonnerat 254
 Manuscript Room, Bloomsbury 259
 Maori names 309
 Maoris, 293
 Marcgrav [i.e. Marcgravius, Georgius] 91
 Marolles, Lieut. de 284
 Marr, J. 125
 Marshall, N. B. 246
 Martinet, A. 273
 Martini, J. H. F. 82, 107, 168
 Martyn, T. 74, 75, 94-96, 102, 108, 124
 Maryland 9
 Mason, Dr. W. 83
 Massis, D. L. 202
 Masson, F. 263-264
 [biographical note] 345-347, 349
 Masson's collection 299
 Matheson, C. 132
 Mathews, G. 254, 256, 259, 275, 294, 296, 307,
 325, 328, 333, 336, 359, 360
 Mathews & Iredale 138, 291, 296
 Mathews & Murphy 268, 308, 335
 Mathias, T. J. 177
 Manton & Rackett 7
 Mauritius 52, 291
 Mawe, J. 158
 Mawe's manuscript names 158
 Mayr, E. 286, 305, 307, 326, 335
 Mayr & Ripley 309, 325
 Mazell, P. 271
 Meek & Hildebrand 225
 Melville, J. C. 136
 Melville, W. 261
Mémoires de l'Académie d'Arras
Mémoires de la Société des Antiquaires de la
Morinie 52
Memoirs for the Curious 22, 44
 Mercury Bay 97
 Merrem, B. 326, 342
 Merrill, Dr. E. D. 68
 Metz, G. 260, 315-317, 348
 Meuschen, F. C. 191, 202, 209
 Mews-gate 176, 177
 Middle Temple, London 5
 Miller or Müller, J. F. 263
 [biographical note]
 281, 291, 302, 344, 347, 348
 "Minikin pins" 200
Minute and rare shells of Sandwich 84
Minutes Conchologists' Club 136

- Miscellaneous bird paintings . . . 347-349
 Mitchell library of Sydney . . . 255, 258, 261, 310
 Mission to Ashantee . . . 131 fn.
 Mo-dieu . . . 331
Moeurs, amusements et spectacles Javalois . . . 67
 Moho . . . 326
 Moluccas . . . 9
 Mollusca catalogue . . . 12
Mollusca and Radiata . . . 11
 Monck, Christopher, 2nd Duke of Albemarle . . . 26
Monograph of Cypraea . . . 135
 Monro, A. . . 261
 Montagu House . . . 124, 126, 177
 Montagu, G. . . 84, 115
 Montagu, John, 4th Earl of Sandwich . . . 79, 260, 348
Monthly Miscellany or Memoirs for the
 Curious . . . 9, 22
 (Moorea) Eimeo . . . 304, 326
 Moravians, Brethren of the . . . 125
 Morice, T. . . 175
 Morris, L. . . 132
 Morris, W. . . 132
Morse . . . 264
 Mullens, W. H. . . 78
 Müller, J. S. . . 109, 263, 322
 Müller, S. . . 273
 Murphy, R. C. . . 277, 289, 291, 296, 297, 330
 Murphy & Mathews . . . 286, 308, 335, 338
 Murphy & Pennoyer . . . 295
 Murphy & Snyder . . . 313
 Murray . . . 197
Museum Adolphi Friderici . . . 213, 225, 226
 Museum, Ashmolean . . . 6, 7
Museum Boltenianum . . . 169
Museum Britannicum . . . 11, 40
 Museum Calonnianum . . . 77, 83, 169, 170
 Museum Collection . . . 5, 168
 Museum Cracherode . . . 124, 126, 131, 146
Museum Edinense . . . 310
Museum Gronovianum . . . 196, 209
 Muséum d'Histoire Naturelle . . . 273, 280
 Museum, Hunterian . . . 75
Museum Ichthyologicum 188, 189, 191, 192, 197,
 198, 203, 206-210, 212, 213, 215, 216, 221-244
 Museum, Leverian, *see* : Leverian Museum
 Museum material . . . 10
 Muséum National d'Histoire Naturelle . . . 254
 Museum Petiverianum . . . 8
 "M.P." = Portland Museum . . . 77

 "naked snails" . . . 8
 Naples . . . 89, 195
 Namaqua Hottentots . . . 346
 Namaqualand . . . 346
 National Collections . . . 124
National Geographical Magazine . . . 300
 National Maritime Museum . . . 262
Natural Arrangement of the Mollusca . . . 129
 Natural History . . . 10
Natural History of Aleppo . . . 189
Natural History of British Shells . . . 98
 Natural History Collections . . . 255
Natural History of Cornwall . . . 202
Natural History of Carolina . . . 10, 34
 Natural History Department . . . 4, 133, 139, 146
 natural history drawings and specimens . . . 258
Natural History of Jamaica 5, 8, 22, 27, 33, 44
 natural history notebooks [Anderson] . . . 261
Natural History of Zoophytes . . . 81
Naturalists' Miscellany . . . 10, 135, 139
Naturalists' Repository . . . 85
Naturforscher, Der . . . 98
Naval Chronicle . . . 263
 Neese . . . 202
 Negapatan . . . 88
 Nelson, H. . . 89
 Neozelanic region . . . 341
 New Caledonia . . . 312, 314, 320, 324
 New Caledonian birds . . . 284
 Newcastle-on-Tyne . . . 287
 Newfoundland 79, 89, 108, 109, 256, 257, 259,
 266-272
 Newfoundland birds . . . 259
 Newfoundland coast . . . 280
 Newfoundland diary . . . 258
 Newfoundland Survey . . . 310
 New Guinea . . . 291, 347
 New Hebrides . . . 284, 288, 305, 312, 313
 New Holland . . . 90, 91, 102, 124, 274, 295
 New South Wales . . . 90, 91, 99-101, 124, 273, 310
 New Year's Island . . . 292, 301
 New York . . . 147
 New Zealand 85, 95, 97, 98, 102, 106, 124, 125,
 272, 276, 282-285, 291, 294, 301, 303, 306, 314
 317, 320, 326, 337, 341
 New Zealand lily . . . 315
 Nieuwland, I. la Fargue van . . . 197, 198, 225
 Nieuwland drawings . . . 213
Niger . . . 89, 109, 257
 Nodder, R. . . 10, 41
 Nodder & Shaw . . . 139
 Nootka Sound . . . 108, 336, 343
 Norman, J. R. . . 216, 237, 243
 Noronha or De Noronha . . . 52, 55
 Norrland . . . 79
 North America . . . 327
 North America, eastern coast . . . 335
 North American birds . . . 259, 262
 North Atlantic Ocean . . . 280
 North Australia . . . 101
 North Berwick . . . 260
 North Berwick Mains . . . 261
 North Island . . . 285
 North Pole . . . 344
 Norton Sound . . . 338
Notice sur le pohon upas . . . 67 fn.

- Notice sur Malsant, comtesse d'Artois* . . . 53
 Nova Cambria . . . 90, 91, 97, 101, 106, 107
 Nüremberg 263
- Observations on the Coast of New Holland* . . . 9
Observations on the Explanatory Tables . . . 96
Occasional Remarks 85
 Ocean, Indian 102
 Ocean, Pacific 72
 Oceanic birds 254
 "Old Dry" 81
 Olifant's River 263
 Oliver, W. R. B. 310
 Omai 82, 89
 Orange River 264
 Otaha 286
 Otaheiti (Tahiti) 79, 95, 158
 Overstraten, van 51, 52
 oysters 9
 Oxford 5, 7
 Oxford, University Museum 6
- Pacific 72, 89, 103, 259, 282, 295, 296, 300, 304
 Pacific coast 109
 Pacific, eastern 277
 Pacific islands 317
 Pacific region 258
 Pacific, south-eastern 275
 Paillou, P. 256-259
 [biographical note] 260, 266, 267, 270, 271, 349
 Paillou illustrations 271
 Paillou, paintings 357
 paintings by unknown artists 314
 paintings of fishes 258
 Palmer, G. 246
 Palmer & Wheeler, 232
 Palisser, Sir Hugh 80
 Paris 195, 262
 Paris collection 131
 Paris, sale 193
 Parkinson, J. 78
 Parkinson, S. 75, 99, 255-259
 [biographical note] 266, 275, 277, 279, 304
 Parkinson's drawings 276
 Parkinson's drawings & descriptions 359
 Parkinson's unpublished drawings 272
 Parkinson's journal 99
 Parkinson's notes 266
 Parkinson's paintings 259, 265, 266, 269, 272, 367
 Parkinson's shell collection 74-75
 Parkinson, Stansfield 75
 Patterson, Lieut.-Col. W. 137
 Payne, T. 176
 Peale, T. R. 304, 333
 Pearse, T. 256
 Peattie, J. C. 35
- Pegu 102
 Peile, A. J. 115
 Pembroke 115
 Pennant, T. 83, 88, 113, 114, 115, 131, 132, 202,
 254, 258-260, 265, 269-271, 325, 332, 335, 338,
 349
 Pennington, R. 255
 Pennoyer & Murphy 295
 Perry, G. 134-139
 Peru 273, 310
 Peters, J. L. 284, 287, 297, 302, 334
 Petiver, J. 8, 9, 12, 13, 22, 27, 39, 44, 84
 Petiver shells 149
 Petiverianum, Museum 8
 Philadelphia 110
 Philippine Islands 9
 Phillip, A. 273
 Phillips, of Bond Street 187, 193
Philosophia Ichthyologicum 195
Philosophical Transactions 8, 9, 23, 44, 263
 Phipps, C. J., 2nd Baron Mulgrave 79, 89, 257, 263
 Phipps's voyage 344
 Physico-Medical Society of Basle 191
 Pigeon, E. 11
 Pinto, S. Y. 234
 Piso, G. 91
 Plinius Secundus 190
 Plymouth 26
 Poda 202
 Poivre, P. 291
 Polynesian birds 288
 Polynesian species 306
 Popham, A. E. 254
 Port Hacking 99
 Port Jackson 102, 273
 Port Praya 113
 Port Royal 27
 Portland 83
 Portland, Duchess of *see* : Cavendish
 Portland cabinet 101, 113
 Portland Catalogue 72, 74, 75, 76, 82 fn., 83, 84,
 85, 87, 88, 90, 94, 95, 101, 106-108, 115, 132,
 133
 Portland collection 75, 76
 [sale]. 83, 86
 [sale]. 93, 104, 109, 110, 125, 134
 Portland specimens 125
 Portland vase 76, 89
 Possession Island 90
 Poverty Bay 285
 Pribiloff group 328
 Prince's Island 107, 324
 Prince William Sound 322
 Pringle, Sir John 263
 Prodrome, Lamark's 147
 Public Record Office 261
 Pulo Condor 9, 262, 324
 Pulteney, R. 83, 88, 113-115
Pursuits of Literature 177

- Quarterly Journal of Science* 11, 129, 149, 156
 Queen Charlotte's Sound 283, 286, 301, 304, 305
 Queen's Square, Westminster . . . 176
 Queensland 99-101
- Racehorse* 89
 Rackett, Rev. T. 83, 84
 Radcliffe Science Library 6
Rafflesia 56
 Rafinesque-Schmaltz, C. S. 217
 Raiatea (Ulietea) 326
 Rappenburg 190
 Rauwolf, L. 197
 Ray, J. 8, 9, 21, 22, 27
 Ray, Miss 348
 Raya, Island 92
Recherche 53
Record of the Royal Society 189
 Reeve, L. 10, 86, 104, 136, 137, 169
 Regan, C. T. 203, 214, 215, 226
 Rehder, H. A. 88
Relation du Sac de 1771 53
 Rembrandt, H. van Rijn 176
Repertorium Bibliographium 178
Report 158
Resolution 80, 82, 89, 108, 125, 260-262, 283,
 299, 310, 314
 Revesby 81
 Rhinoceros River 264
 Richardson, Dr. J. S. 255
 Richmond, Duke of, *see* : Lennox
 Ridgway, R. 336
 Rijksmuseum van Natuurlijke Historie,
 Leiden 254, 264, 304, 325, 326, 334, 340
 Rio de Janeiro 91, 92
 Ripley & Birkhead 304
 Ripley & Mayo 309, 325
 Röding, P. F. 169
 Rogers, Julia Ellen 109
 Rogers, Woodes 10, 34
 Rogge Veld Mts. 264
 Rome 195
 Rothschild, The Hon. Lionel Walter,
 afterwards 2nd Baron Rothschild
 302, 326, 333, 334, 337
 Royal Academy 259, 262
 Royal College of Surgeons 261
 Royal Library, at The Hague 196
 Royal Mint 81
 "Royal Physico-Medical Society of
 London" 191
 Royal Scottish Museum 255, 256, 261, 310, 311
 Royal Society 12, 79, 157, 176, 191, 199, 263,
 269, 300, 303, 307
 Royal Society, Journal of 22
 Royen, D. van 189, 196
 Rumphius [Rumpf, G. E.] 55
 Russell, A. 189, 202
- Ruysch, F. 237
 Rymsdyk, J. & A. van 11, 40, 44
- St. Jago 113
 St. Lawrence 269
 St. Matthew Island 328
 St. Paul Island 274
 Sta. Christina (Tahuata in the Marquesas) 287
 Sale of large collections in the 18th and 19th
 centuries 76
 Salisbury, A. E. 147-149
 Salvadori, T. A. 283, 284, 305
 Salvin, O. 254, 256, 277
 Samoa 288, 305, 312
 Sandwich, Lord *see* : Montagu
 Sandwich Islands 97, 98
 Sandwich Sound 322
 Santa Cruz 92, 305
 Saunders, H. 331
 Savu 107
 Sawyer, F. C. 259
 Schaeffer, J. C. 219
 Schilder & Schilder 91, 101
 Schlosser, J. A. 224
 Schneider, J. G. 243, 358
 Scopoli, G. A. 202
 Seale, A. 236
 Seba, A. 189, 231
 Seba collection 213
 Seebohm, H. 306
 Seguier, J. F. 189
 Selby & Jardine 282
 Seter, Dr. W. H. van 196 fn., 246
 Sharks Bay 9
 Sharpe, Bowdler R. 78, 124, 254, 255, 256,
 275-279, 282, 285, 286, 299, 303, 304, 306, 322,
 324, 325, 328-332, 334, 337, 338
 Shaw, G. 10, 11, 139, 203, 263, 273
 Shaw & Nodder 135, 139
Shell Book, The 88
 Shell collections 74-78
 shell fish 9
 shells collected by Sloane in Jamaica 26-34
 shells collected by various donors 34-39
 shells figured by Martin Lister 13-22
 shells figured by James Petiver 22-26
 shells from Australia 98-107
 shells from Britain 113-116
 shells from British Columbia 108
 shells from the Caribbean and Bahama
 Islands 110-111
 shells from the East Indies 111-112
 shells from the Mediterranean 113
 shells from Newfoundland 108
 shells from New Guinea, Java 107-108
 shells from New Zealand 97-98
 shells from Otaheite (Tahiti) 94-96
 shells from Rio de Janeiro 91-93

- shells from Tierra del Fuego 93-94
shells from the United States Atlantic coast 100-110
shells collected by various donors 34-39
shells from the West Indies 112-113
Sherborn, C. D. 158
Sherborn & Sykes 169
Sierra Leone 89
Singapore 224
Skene, surgeon on the *Morse* 264
sketchbook 259
Sloane, Sir Hans 3, 44, 82, 88, 102, 124, 131, 140
Sloane catalogue 137
Sloane collection 81, 93, 102, 110, 149
Sloane material 128, 149
Sloane shell collection 3-12
[historical account] 13-44
Sloane specimens 11, 39-44
Smeathman, H. 89, 112
Smith, E. A. 12, 72, 77, 123, 132, 191, 195, 223
Smith, I. 261
Smith, M. 109
Snyder & Murphy 313
Society of Arts 259
Society Islands 286, 303
Society group 304, 326
Soehati 56
Soho Square 81
Solander, D. C. 71-116, 125, 128, 133, 134, 255-258
[biographical note] 259, 262, 263, 272-280, 285, 295, 330
Solander journal 91
Solander manuscript 72-73, 81-86, 256, 279, 280
Solander's original material 107
Solomon Islands 103, 317
Sonnerat, P. 291
South Africa 325
South African coast 222
South African bird paintings 264
South African breeding birds 299
South African natural History paintings 264
South African species 222
South America 277, 348
South American birds 291
South American coast of 296
South American species 299
South Georgia 291, 296, 297, 301, 314
South Island 283, 302
South Kensington 7, 131, 255
South Pole 80
South Seas 10, 80, 88
South Sea Islanders 80
South Seas material 76
Southern Hemisphere 311
Southern Ocean 85, 98
Sowerby, G. B. 78, 86, 135-137
Sowerby, J. 157
Spanish shipping 10
species, types of 254
Spencer, Lord *see* : Spencer, George John,
2nd Earl Spencer 177
Spencer, Lady Lavinia 178
Spengler, L. 96
Spenser, Lady *see* : Spencer
Spurrit, [probably C. J. Spurrell] 137
Spurrit shell collection 137
Stanley, Edward Smith, 13th Earl of Derby 327
State Archives, The Hague 202
Statenland 292, 297, 301, 320
Stearn, W. T. 255
Steenis, van 53
Stephen, Dr. A. C. 255, 338, 345
Steven's Auction Rooms 72
Sting Ray Bay 98
Straits of Magellan 9, 12, 34, 41, 42, 291
Strand No. 428 157, 176
Stresemann, Dr. E. 254, 305, 322, 324, 325, 328, 330, 332, 336, 338, 339, 341
Stuart, John, 3rd Earl of Bute 196, 197
Stutchbury, S. 129, 137
Stutchbury shell collection 137
Supplement [Testacea Britannica, etc.] 115
Supplement [Testaceologicus] 11, 128, 130, 135, 156-158, 165, 166
Surat 9
Suratte 102
Surinam 21, 22, 265, 347
Suter, H. 97, 98
Swainson, I. 116
Swainson, W. 11, 72, 77, 85, 87, 135, 139, 156, 157, 167-169, 303
Swarth, H. S. 336, 343
Sweden 79
Sydney 99, 102, 310, 311
Mitchell Library 255
Sykes & Sherborn 169
Synon. & Ref. (Wood) 157
Synopsis of the Contents of the British Museum 126, 128, 130
Synopsis of the Mollusca of Great Britain 139
Systema Naturae 13, 73, 79, 81, 82, 84, 86, 93, 105, 106, 128, 133, 188, 191, 192, 198, 254, 258, 273, 280, 295
System of Conchology 13
Systematic catalogue of the Gronovius fishes 202-246
Tabernetty 349
Tahiti, (Otaheiti) 79, 82, 94, 106, 273, 278, 286, 301, 302, 304, 305, 310, 312, 317, 318, 326, 333, 335
Tahitian birds 284
Tamar 88
Tankerville, Earl of *see* : Bennet
Tankerville collection 76, 86
Tankerville Catalogue 86
Tankerville sale 86

- Tanna 284, 303, 305
 Taplow, Buckinghamshire 175
 Tasman, A. J. 98
 Tasmania 89, 291, 303, 339
 Tasmanian birds 324
 Temminck, C. J. 304, 327
 Temminck collection 274
 Tengmalm, P. G. 322
 Terra Australis Incognita 79, 80
Testacea Britannica 84
 The Hague, Royal Library 196, 202
 Thiele, J. 13 fn., 91, 138, 140
 Thunberg, C. P. 263, 264
 Tierra del Fuego 94, 297
 "Titi" 293
 Tomlin, J. R. le B. 106, 191 fn.
 Tonga 287, 302, 318, 325, 330
 Tonga group 288, 341
 Tongan birds 308
 Tongatatu 283, 288
 Torres Strait 99
 Torres Straits Islands 103
 Townsend & Wetmore 333
 Tradescant, J. 5
 "Tradescant's Ark" 5
 Tranquebar 89, 125
Transactions [of the Linnean Society] 72, 116
 Trincomali 88
 Trinity Bay 269
 Tristan da Cunha 274, 296
 Tropic of Cancer 329
 Trustees [of the British Museum] 139, 176
 Tuamotu Islands 304
 Tuamotu Archipelago 333
 Tunstall, M. 287
 Turbott, G. 255, 281, 298
 Turtle Island = Christmas Island 330, 331, 341
 Turton, W. 84
 type localities 254
 types of the species 254

Uitgezogte Verhandlingen 189
 Ulietea (Raiatea) 286
 Unalaska 336
Universal Conchologist 74, 75, 102
 University Court, Glasgow 75
 University of Edinburgh 255
 University Museum, Edinburgh 282
 University of Glasgow 75
 University Museum, Oxford 6
 unpublished drawings 260, 322
 unpublished paintings 339
 Uppsala 79
 Uppsala University 226

 Valenciennes, A. 192
 Valenciennes & Cuvier 227, 231

 Valentia, Lord *see* : Annesley
 Valentia, shell collection 137
 Valentyn, F. 231, 237
 Vancouver 256
 Vancouver Island 343
Various Subjects of Natural History 263, 344, 347
 Venus 79, 94
 [transit of] 269
Verklarend Woordenboek 51
 Verreaux & Des Murs 284
 Vieillot, L. J. P. 272, 273, 279, 333
 Vienna 282, 284
 Vienna Museum 326, 334
 Vigors, N. A. 135, 136
 Virginia 109
 Virginian plants 202
 Vosmaer, A. 202
Voyage à la nouvelle Guinée 291
Voyage of the Erebus and Terror 310
Voyage [towards the North Pole undertaken
... 1773] 344
 Voyage to Spitzbergen 263

 Wagler, J. 298
 Walbaum, J. J. 209, 239
 Walker, Dr. 262
 Walker, G. 84
 Walker, J. 261
 Wallace, A. R. 76, 88, 89, 99, 124
 Wateeo 331
 Water colour drawings 266
 Watt, Martha, née Ellis 81
 Webber, A. 262
 Webber, G. 262
 Webber, W. 255, 256, 262
 [biographical note] 333, 338-340, 343
 West Africa 112
 West India Company 202
 West Indies 89, 115, 348
 Westminster Abbey 177
 Westminster School 176
 Wetmore, Dr. A. 255, 271, 287, 332
 Wetmore & Townsend 333
 Weymouth 83, 113, 116
 Wharton, Sir William 90
 Whatdue 331
 Wheeler & Palmer 233
 White, J. 273
 White, T. 259
 Whitley, G. P. 188
 Whitney expedition, 254, 288, 304
 Whyte, printer of London 196
 Wigglesworth, L. 254, 306
 Wilkins, G. L. 6
 Williams, Madame 9
 Willughby, F. 237
 Wilna 89

Wilson, A.	35	York Island (Morea)	343
Wilson shell collection	137		
Wilson & Evans	320, 327, 334, 336, 337		
Wilson, Lady	137	Zierikzee	190, 212
Winckworth, R.	115	Zollinger, H.	56
Wood, Casey	259	Zoology Department, B.M. (N.H.)	3, 259
Wood, jun.	157	<i>Zoological Illustrations</i>	85, 169
Wood, W. 11, 42-44, 82, 86, 87, 97, 98, 128, 129, 135, 156-158, 164-166		<i>Zoological Journal</i>	129, 135, 158, 167-169
Woodward & Kennard	147-149	<i>Zoological Miscellany</i>	11, 40, 77, 129, 139
Wyatt, T.	147	<i>Zoophylacium</i> 188, 191, 192, 195, 197, 198, 202, 203, 216, 220-222, 231, 238, 245, 246	

PRINTED IN GREAT BRITAIN BY
ADLARD AND SON, LIMITED
BARTHOLOMEW PRESS, DORKING